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26 Stocking Stuffers

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New Year's Resolutions

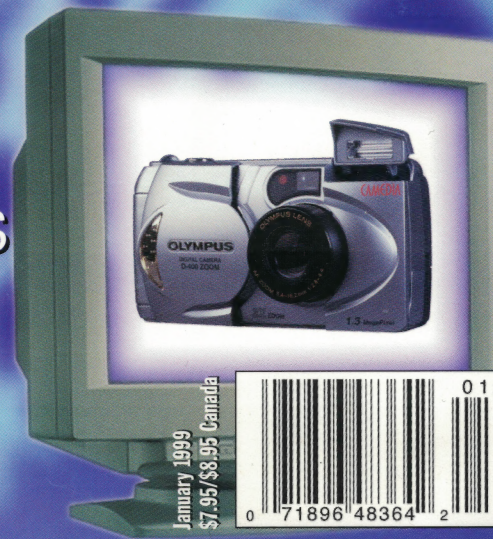
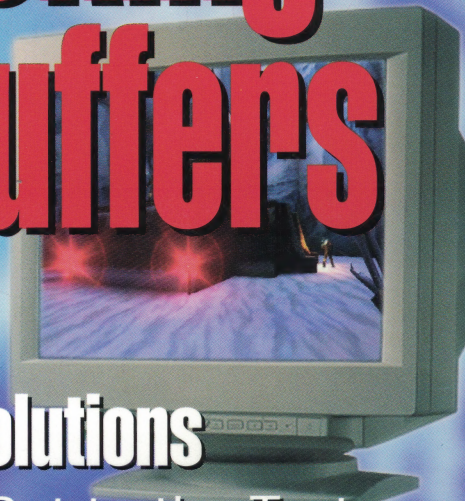
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8.5 Comes Alive

MacHome Reviews Apple's Latest OS

The Dream Home Office

Tips for Designing Your Own



January 1999
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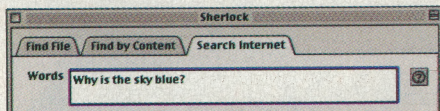


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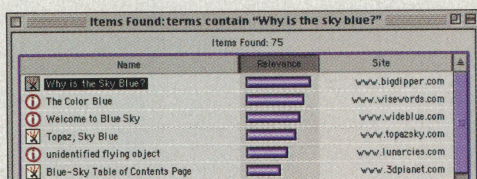
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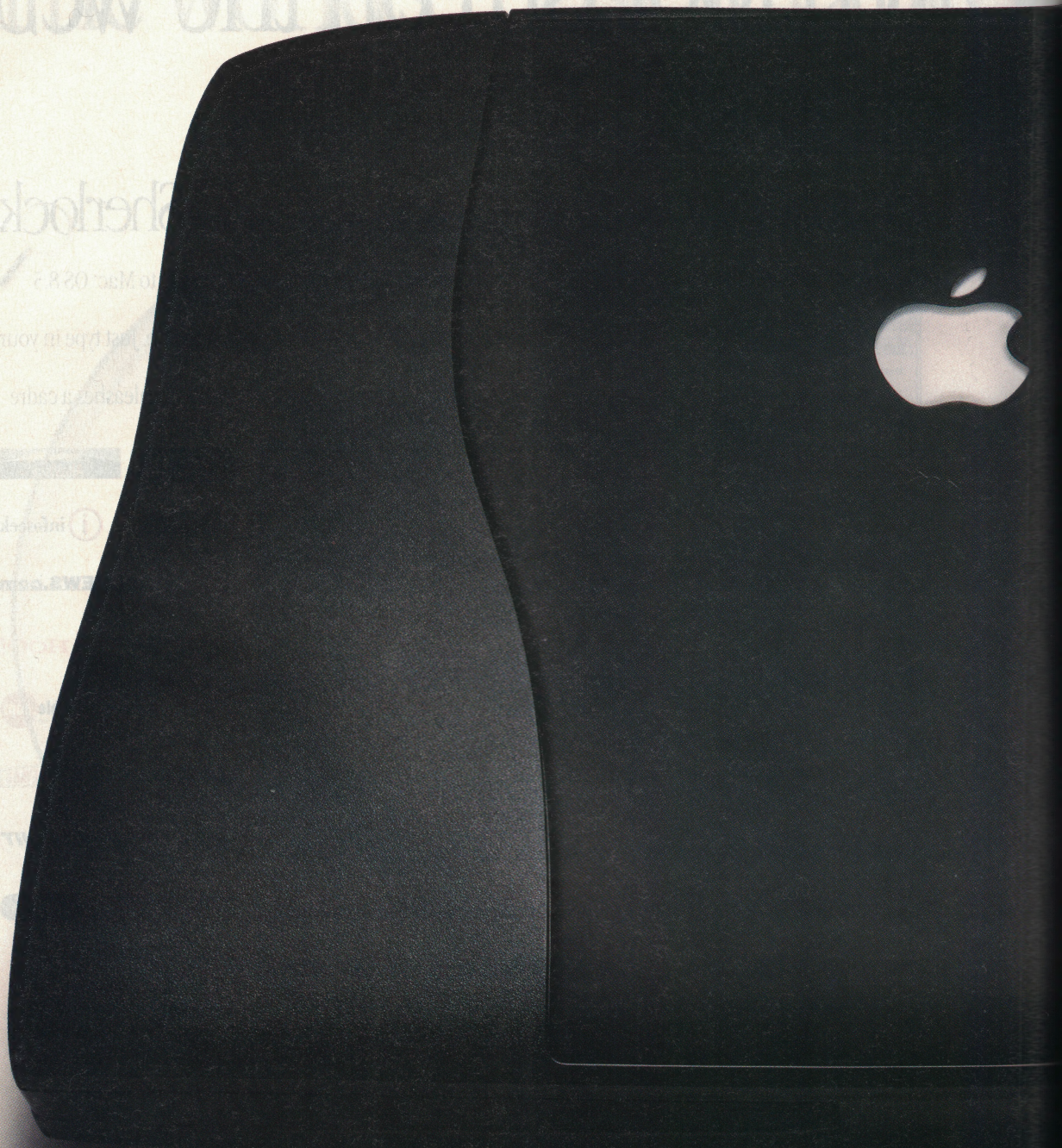


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january 1999 contents

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volume 7, number 1

Features

Feeling Stuff? MacHome's Sassy Stocking Stuffers

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By Anne Marie Feld

Last year the kids got coal in their stockings, because you know how they were back then. While the shiny black lumps worked fine to heat the house, they didn't do much to warm the hearts of the little Mac enthusiasts. Here are a few stocking stocking-stuffer ideas that won't blacken toes or hearts.

Mac OS 8.5 — The Review

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By John Poultny

A new year, a new operating system. Apple says Mac OS 8.5 is the "must-have" upgrade, but is it really the "must-wait" upgrade? We look at the ups, the downs, the pros, the cons, the laughing, the crying. See how many apples Apple's new OS rates.

Hey Nineteen: 13 Marvelous Monitors

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By Alan Stafford

Thanks to a free fall in monitor prices, 19-inch monitors are now as inexpensive as 17-inchers were last year. Better yet, you can now get a monitor that is ruler-flat and bright as can be. We test 13 of these big, beautiful, affordable displays.



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newsWire

Read all about it: news, products,
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Apple's best year in years

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New money packages

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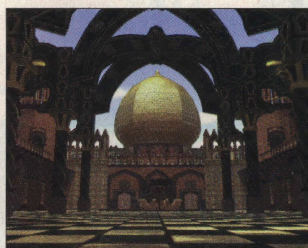
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Reviewed This Issue

Your Office: Software

★★★★	Avid Cinema
★★★★✶	CorelDRAW 8
★★★★✶	FastTrack Schedule 5.0.2
★★★★	GlobalFax 1.04
★★★★	Illustrator 8
★★★★	MacLinkPlus Deluxe
★★★★	Softwindows 98
★★★★	Virtual PC

Your Office: Hardware

★★✶	DeskJet 697C	
★★★★✶	PowerBook G3/300	
★★★★	RDC-4300 digital camera	
★★★★	SuperDisk USB drive	
★★★★	Vpower PF 54xx/64xx G3/240 upgrade card	

Entertainment

★★★★✶	Lode Runner 2
★★★★✶	Morpheus
★★★	Ocean Bound
★★★	Rocky and Bullwinkle's Know It It All Quiz Game
★★★★	Rocky Mountain Trophy Hunter

Your Family

★★★★	Blue's Birthday Adventure
★★	Fisher-Price Great Adventure Castle
★★	My Disney Kitchen
★★★★	Ready for School Kindergarten
★★★★	Rugrats Movie Activity Challenge

Our Rating System

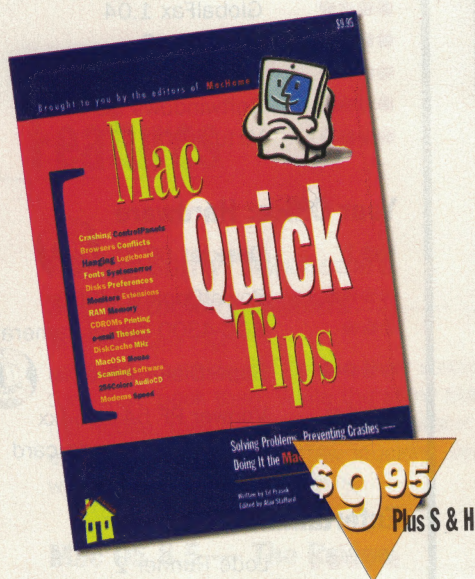
★★★★★	Mac-nificent. You gotta get it. No flaws.
★★★★	Excellent. Recommended even if it has a minor flaw or two.
★★★	Average. Despite problems, still a worthwhile product.
★★	Below Average. Has serious flaws that limit its usefulness or fun.
★	Poor. Avoid this product at all costs.



Indicates iMac compatibility

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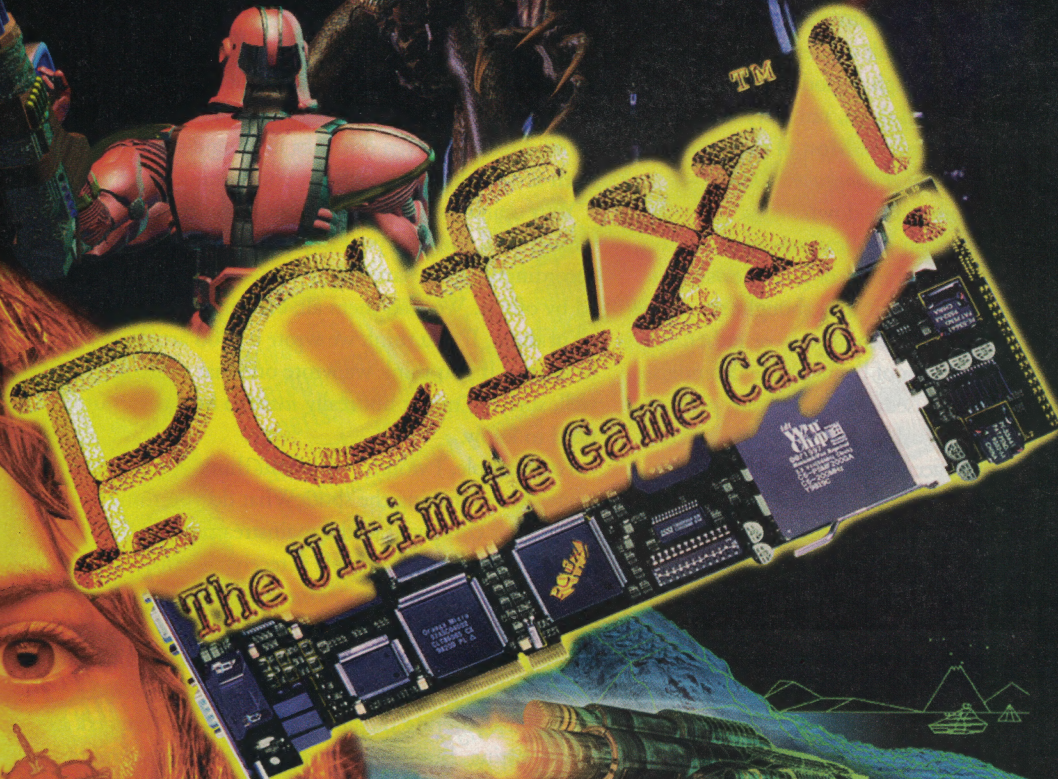
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Dulcet Tone or Biased Tome?

In recent years we in the Macintosh press have wrangled ourselves into a difficult corner of the journalism world. During Apple's rough period, the "mainstream" media, as we like to call them, ran story after story about Apple's blunders and misfires. Most of them sounded like verbal interpretations of *A Clockwork Orange* — gleefully kicking Apple while it was down.

Meanwhile, many Macintosh publications, especially on the Web, ferreted out the tiny chunks of good news about Apple and blew them up into what they thought should be 72-point headline grabbers. We were put — or rather, we put ourselves — in the position of being Apple defenders.

We accused the mainstream press of Apple bashing, while the mainstream press accused us of being in Apple's pocket.

The correct position, as we were taught in journalism schools across the country, is to have no position. Let the facts speak for themselves, and let the readers be the judge. In practice, though, maintaining objectivity can be difficult, especially for those of us with such a narrow focus

as the Macintosh. Many of us are in this media sector because we're Macintosh advocates, and our personal feelings can cloud our judgement and our reporting. Other, more mundane factors also threaten objectivity: deadlines, whether a story pans out or not, our prior experience with a company or product, and even how public-relations personnel interact with us. It takes a conscious effort to be fair and objective.

Despite our best efforts, *MacHome* occasionally gets letters accusing us of being either too rough or too easy on Apple. Three people in the last year have used the term "Pollyanna" in describing our coverage (ouch!). However, during the same period, a few readers have felt we've emphasized Apple's miscues when we should be finding the good in them. Finally, last week we received a letter telling us our printed porridge is "just right." It warmed the cockles of my heart.

Usually you write letters in response to individual articles, rather than to disagree with a tone you've found

apparent throughout the year. It's difficult to maintain a constant tone, what with different writers, different editors, and an infinite number of possible topics. We occasionally hit some hot buttons, and that's good, because we want to invite discussion, even if it risks inciting disagreement. Even if we tick you off, at least you're thinking of us.

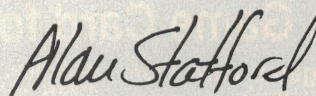
Your opinions can sway us, too. If you think we're wrong, we'll consider your objections and perhaps adjust accordingly. We're flattered by some of your letters, insulted by others. We read them all, even if we can't respond to all of them. If you think we wrote a good article, we'd love to hear it. If you think we wrote one that really blew — well, sure, we might not really *want* to hear that, but we need to know.

For example, I wonder what you think of our iMac coverage. Are we hitting the spot? What do you think of our coverage as compared to the mainstream press? With the spawning of the iMac, Apple is receiving considerable positive press these days. Hey, *Fortune* and *The New York Times* are treading on our glad-handing turf!

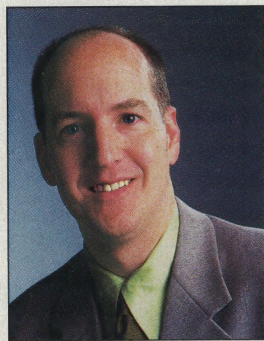
My feeling is that mainstream publications really aren't doing anything different from what they were before; they're just covering the news. The news has changed, not the reporting. But just to see what the mainstream press thinks about it, I asked Jim Carlton, the *Wall Street Journal* reporter who just released a new version of his book, *Apple, The Inside Story of Intrigue, Egomania, and Business Blunders*, if he thinks the mainstream press has been fair to Apple. "Look at the [positive] press now — I think that's proof that we have," he responded. The truth hurts.

As for *MacHome* and you, remember, we're all in this together. Er, scratch that — no, we're not! *You* are all in it together. We're the neutral, nonaligned, nonpartisan bystanders, just reporting the facts, ma'am.

Macs forever,



Alan Stafford
Editor in chief



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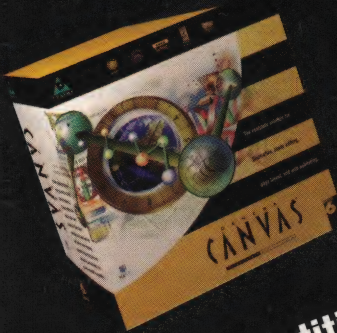
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Heard any Good Jokes Lately?

Help! I am being flooded with several Macintosh-hostile e-mails and Mac jokes. One disturbed person (whom I know well) started a Mac-haters club to bug me since I use the "inferior OS" (which I know as the superior OS). Can you direct me to some sites that have PC jokes and other facts stating why Macintosh and the Mac OS are way better than PCs and the Windoze operating system?

—Mac-user-m-1

 OK, Bill Gates and Steve Jobs are riding on a train ... Readers, can you fill in the blanks?

Smells Like Mac Spirit

I have a suggestion for your magazine. As a demonstrator for the iMac at the last two iMac days, I found a need. Since not everyone who purchased an iMac planned to go on the Internet, I suggest that you supply on your CD-ROM an iMac section that contains the upgrades or drivers that are available from Apple, Epson, Connectix, and others that can be downloaded for free over the Internet.

You might even have a separate section in your "Tips and Tricks" for the iMac (i.e., where is the reset button). Great magazine — I suggested it to all the new Mac owners.

—Norman Milsner

 We are now providing all iMac updates on our CD. And, yes, we're gearing much of our content to new iMac owners.

I have been using Macintosh since I was six years old. I am now 14 and still love it just as much. I currently have a Power Macintosh G3/266. I just upgraded to Mac OS 8.5 and I think it is the best upgrade I have made since the G3. But to know as much as I do

about the Mac, I must give all credit to *MacHome*. I have read your magazine cover to cover for many years and without you I would never know how to do anything from a force-quit to zapping the PRAM. So I say thanks for the all the years of teaching. I will always be a Mac user and never anything else.

—Chris Palmaz

In the Middle of the Teetertotter

I recently found you online and then went in search of your printed magazine. I found both to be excellently organized and written. I especially liked the lack of Mac fanatic-type slants in the writing; even though I am somewhat fanatical in my attraction to the Apple product.

I also appreciated the fact that you're well rounded in your approach, covering more than games and super-programs. Your publications do cover these items, but they are superbly balanced with those applicable to normal everyday users and their families. I love it! I certainly can't wait for next month's issue.

—C. A. Tester, C. A. Phillips, and R. P. Phillips

I've Got It

Jonathan Ive's answer to your question about the lack of a floppy drive in the iMac [The Ive League, October 1998] was the biggest crock of doubletalk I've heard since Bill Clinton was first asked about Monica Lewinsky. He didn't answer the question; he waltzed all around it.

Apple has blown a golden opportunity to revitalize itself. While PCs are proliferating, plummeting in price, and popping up on every worker's desk, Apple has issued a cutesy looking, overpriced, ill-equipped machine with an ergonomi-



cally uncomfortable yo-yo for a mouse. (I know, because I've tried it.)

I've always had PCs at work and a Mac at home, and I much prefer the Mac

and have been pulling for the company to come back from the brink. But I have serious doubts about the management savvy and the future viability of a company that makes ignorant assumptions about or takes arrogant stances toward the thousands of computer users who use and need floppy disks, who want practical instead of cute, who don't want to pay any more than necessary for a computer, and who have already invested thousands of dollars in computer hardware and peripherals that are useless with the iMac.

I'm sorry to see Apple take that attitude, and I hope they change it while they still have the chance.

—Curt Guenther

Healthy, Wealthy and Wise

HealthDesk Online is a software package which helps you "keep track of every detail of your personal health program. Diet and exercise, personal and family health histories, allergies and medications, physician visits, and vaccinations, insurance information and more! Plus, HealthDesk's online services give you access to an extensive library of reference information on the health topics that concern you and your family every day...."

Sound like something you would like to have? It did to me. This was the only product I found to track family medical history which medical personnel say is vital. So you want it too? It's only available on the Windows platform, they said, because there's not a lot of interest from the Apple community.

I've already lodged a complaint (888-343-4357). If you all join me, they will wake up, hear the Mac owners, and provide us with equality in applications.

—Anne Lagache

If Indeed that's Your Real Name

I found your review about the X-Files game very interesting. I bought this game and I think it really deserves your four-apple rating (if not more). What I'm really writing for is that I wanted to know what the password to Scully's computer was, because it seems you discovered it. I had trouble with some things — such as determining Scully's computer password. Congratulations for your very well-written article.

—Eric Snow

Nice try, Eric, but we must disavow any knowledge of a password, if indeed it does exist. The CIA is monitoring all of our correspondence. How about this weather we're having? So good to hear from you, glad you could make it, and have a nice day.

Gizmos, Gadgets, and G3s

Well. Earlier this year I said to my wife that next month when the three year loan on our current PowerMac 5200 is paid off I had a choice of buying a new Mac, getting cable Internet service, or buying a CD MiniDisc player/recorder.

So far I've been leaning towards the new Mac, and specifically thinking of buying a used PowerBook 1400 (my wife would get my old PB 140 and the 5200 would be the "family machine" with all of our daughter's games on it). I figured I didn't really need all the power of a new G3s, and I definitely didn't have the money. I just wanted a color portable that I could do all my normal work on in the event of another wind-storm like the one we suffered through on Labor Day.

Then I read your editorial in the November issue. When I saw the line about Apple coming out with a line of consumer portables somewhere in the near future, my decision was made for me. I think I'll get the MiniDisc player/recorder and wait for Apple to come out with this machine ... which I'm hoping will be smaller and cost less than the used 1400 I was thinking of getting.

Thanks for the info. Now I can finally get around to doing something about the almost 1,000 45s I've been trying to find a better way to store and keep track of.

—Keith E Gatling

Correction

In our October issue, we mistakenly listed the price of the VST Zip drive as \$199. The estimated street price of the drive is \$239.

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Apple Polishes Up in 4th Quarter

As Steve Jobs, nattily attired in trademark black shirt and blue jeans, strode onstage to thunderous applause at Cupertino's Flint Center in mid-October, the mellow sounds of the Grateful Dead and Jim Croce wafting from the speakers told the crowd that this would be Apple's most feel-good meeting in a long while and that they were in for some good news.

It was. They were.

Jobs tantalized the audience for a few minutes with talk of iMac news and a *new Macintosh* before delivering the good news that Apple's fourth quarter returned a profit of \$106 million, bringing the company to a solid year's worth of profit and solidifying the dramatic turnaround from 1997's disappointing financial results.

All told, the company realized more than \$309 million in profits during this fiscal year — after having lost \$1.04 billion during the previous year. Proclaiming the event a time to “stop and smell the roses,” Jobs revealed impressive revenues of \$1.56 billion for the fourth quarter, and \$5.95 billion for the year. 1998 was Apple's first full year of profit since 1995, when it



reported \$400 million in earnings.

Results were also vastly improved in terms of cash reserves — Apple now has \$2.3 billion in the bank, compared to \$1.4 billion in the fourth quarter of 1997 — and also in terms of computer units shipped, because the last quarter ended with a bang-up 834,000 shipments, up 28% from the third quarter's 644,000 units.

Much of the reason for the upswing lay in the phenomenally successful iMac, which Jobs touted as “Apple's re-entry to the consumer market.” At the time of the event, the iMac had been available for six weeks and had sold 278,000 units in the North American, European, and Japanese markets.

Jobs said an independent survey of iMac purchasers showed that nearly 30% had never bought a computer before, and that 12.5% already owned a Wintel system but had never owned a Mac before. He noted that these two groups represent a major win for Apple, because they represent customers new to the platform. Meanwhile, some 58% of sales went to purchasers who already own a Mac; of these, about 29% were adding an iMac to their arsenal while about the same percentage were replacing an earlier system. (*MacHome's* online iMac survey, at <http://www.machome.com/imacsurvey.html>, shows similar statistics.)

To further the iMac's availability, Jobs announced that Best Buy stores is joining CompUSA as a national reseller, and that consumers can now order the iMac from Apple's online store.

And the aforementioned “new Mac?” Merely OS 8.5. Clever, but ... *hmph!*

SyQuest Spins Down

Things don't look so bright for SyQuest Technology, the removable-storage vendor that has been a fixture in the Mac community for many years. The Fremont, California-based company abruptly ceased operations in early November and said it may file for bankruptcy. At the time, SyQuest's stock had been hovering just around 35 cents per share, down from \$19 in August 1995. The company's stock was removed from trading before the announcement.

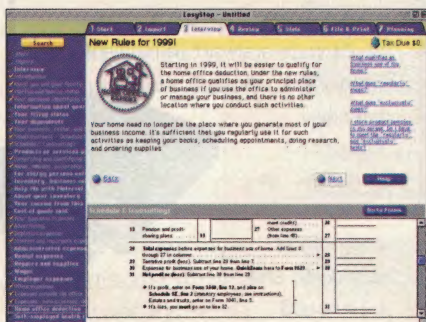
In August 1998, just after the company had made a strong appearance at the Macworld Expo in New York, SyQuest announced that it would lay off some 950 employees — roughly half of its workforce. For its most recent fiscal quarter, the company reported a loss of \$42 million.

SyQuest, founded in 1982, pioneered removable storage with drives using disks that held 44MB, later expanding the capacities to 88, 105, 230MB, and 1.5GB. Its most recent offering, the 1GB SparQ, previewed at Macworld New York and was the subject of SyQuest's most recent announcements — that USB and SCSI versions were in the works. The company also had announced, and then cancelled, plans for a 4.7GB removable.

It's unclear what will happen next, nor is it publicly known how many of the 900-odd employees remain. SyQuest had shopped around for a buyer or partner earlier this year but to no avail. “Keep watching the press releases,” said one employee who preferred to remain anonymous. “Hopefully we'll have something more positive to report soon.”

Many Happy Returns

The wildly differing stories of Apple and SyQuest's current monetary situations could get a body to thinking: What am I doing to keep track of my own financial future?



Luckily, there have been some recent announcements related to just that issue, as the turning over of a new calendar year augurs new versions of two well-known financial packages:

- Intuit is getting into it with a new version of MacInTax, with separate releases tailored to the home and business users. Aimed at home-based businesses, the \$70 MacInTax Home and Business includes a new Home Office Expert that helps you determine eligibility for various deductions, as well as a 1099/W-2 Reporter that lets you print out those important 1099-MISC and W-2 contractors' forms for the IRS, along with those underrated W-3 and 1096 forms. Additionally, a Business Tax Planner module helps sole proprietors grok the tax implications of various business decisions.

MacInTax for Business, listing for \$90, includes specialized information and forms for companies classified as Partnerships, Corporations, and S-Corporations — you know who you are. Meanwhile, the standard MacInTax, priced at \$35, has info for standard, plain-vanilla tax preparation. The company also offers MacInTax Deluxe, a \$50 version of MacInTax, which is bolstered with multimedia guidance files for help in preparing one's returns.

- BestWare launched M.Y.O.B. Accounting Plus Version 8, its small-business accounting package. The new

version has a professional time-billing function for keeping track of billables; previous versions needed a third-party utility or separate invoicing for such tasks.

The package has an improved OfficeLink function for importing and exporting files to Microsoft Office. This feature, introduced in version 7.5, now offers a more reliable way to transfer entire files, rather than just comma- or tab-delimited files, the company said. Other tweaks include user-definable aging routines; support for various graphics files, such as GIFs and JPEGs, in documents (previously you could only use PICTs); multiple customized forms, copying account information directly to new inventory items; and expanded description fields.

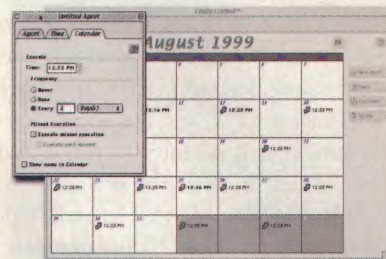
The single-user version of M.Y.O.B. 8 costs \$199; upgrades are \$69 for CD-ROM, or \$79 for diskettes. Up to four additional users, at \$99 each, can be added to the basic package.

Intuit, 800-446-8848

BestWare, 800-322-6962

Cruisin'

Wouldn't it be nice if you could automate your Mac to do, well, anything you want? You can, with the AppleScript scripting language, but



that approach may be a tad challenging for many people. For you, Walnut Systems offers Cruise Control, a \$99 package that lets you schedule backing up, getting e-mail, downloading Websites, starting or waking the computer at a pre-set hour and so on, with a simple calendar-like interface.

Have fun — Start your system at 3:00 a.m. and send the report to your boss, with a little note that says, "Hiya, Chief. Stayed up until 3, but I got it done!"

Walnut Systems, 800-945-8024

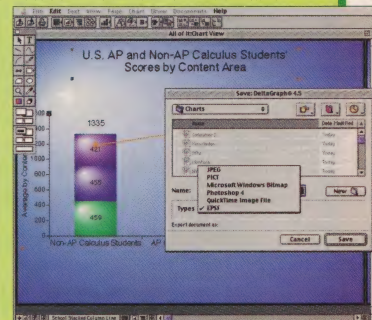
Chart Your Progress

Ross Perot will tell you that the key to being taken seriously is an extensive collection of charts and graphs with which to accompany your every public appearance. But you don't want the same old slumber-inducing pie charts as every other Schmo out there, and that's where SPSS's DeltaGraph 4.5 package comes in.

DeltaGraph 4.5 includes 11 — count 'em — 11 new chart types, for a total of more than 80. New types include Floating Stacked Column, Stacked Column-Line Overlay, Volume High-Low-Close, and the crowd-pleasing Paired Intensity Scatter. You can import data from Microsoft's Excel 3.0, 5.0 and even 98 versions, although you can also enter data manually into a spreadsheet-like module.

The new version is AppleScript-compliant, so ambitious users can do some fancy footwork with things like automatic updates. Additionally, it supports more embedded graphics file types than before. You can also export charts in PhotoShop, QuickTime Image File, JPEG or Windows Bitmap formats. For printing, version 4.5 also supports Pantone color matching.

SPSS, 800-543-2185



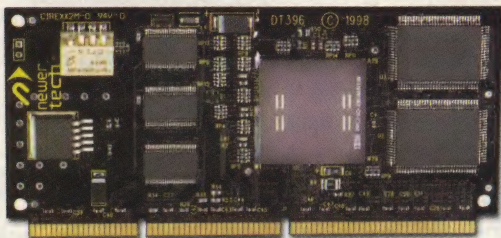
Giddyup, G3! Hyaaaah!

In the words of the irrepressible Buddy Holly, every day, things are gettin' faster. So if today's G3 machines just aren't fast enough for you, there is help. In fact, these days hardly a week goes by without some mention of a new superfast G3-based accelerator card, and this last month was no exception.

Witness the new Mach Speed G3Z family of cards from Wichita, Kansas-based XLR8. These accelerators pop into the zero insertion force (ZIF) socket on the motherboard of any desktop G3 Power Mac. The cards include utilities for setting the optimal cache, CPU, and bus speeds for your particular setup, along with a program for obtaining card statistics — yes, including CPU temperature.

The G3Z cards are priced at \$1,649, \$1,349, \$1,149, and \$949 for models using 400MHz, 366MHz, 333MHz, and 300MHz chips, respectively. All include 1MB of backside cache. A 300MHz version with 512K of cache also is available for \$599.

Then there's Newer Technology, which coincidentally also is based in Wichita. The company has released new G3 upgrades for the PowerPC 603e-based Apple Power Mac 4400, APS Technologies' M*Power clones, as well as Motorola's StarMax clone systems, which used both 603 and 604 processors.



The MaxPowr G3 L2 cards, as they are known, are available in 260MHz, 300MHz, and 320MHz varieties for \$499, \$599, and \$999, respectively. The 260MHz and 300MHz models each have 512K backside cache running at 130MHz and 150MHz, respectively, while the 320MHz design

has a 1MB cache running at 160MHz. Newer's cards install into the Level 2 cache slot of these systems, because the original processor is soldered in place.

PowerLogix, meanwhile, has announced the PowerForce G3 ZIF 400, a 400MHz upgrade for desktop G3s, for \$1,599. The card has 1MB of backside cache running at 266MHz. A 400MHz PCI version, with a 1MB (200MHz) backside cache, is now available for \$1,499. This card works with Apple's 7300, 7500, 7600, 8500, 8600, 9500, and 9600 Power Macs; the Umax J700 and S900 clones; and all Power Computing systems except for the Power 100, which was not equipped with PCI expansion slots.

MacCPU, meanwhile, is ready to go with a G3 upgrade for the celebrated 20th Anniversary Mac, Apple's tony, modern art-inspired model from '97. The G3 Cache Card, priced at \$599, runs at 225MHz and includes 512K of backside cache running at 112MHz.

XLR8, 800-513-9744, Newer Technology, 316-943-0222

PowerLogix, 888-769-9020, MacCPU, 305-669-2933

HP Prints Out New Photo-Quality Inkjet

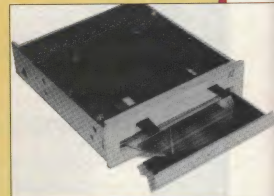
Hewlett-Packard is ready with a new high-quality inkjet printer, the DeskJet 895Cse. HP says this \$399 printer is its fastest inkjet yet, offering 6 pages per minute in color, or ten in monochrome, with 600 dpi resolution for heirloom-quality prints.

Though the printer has a USB port, HP is being gigglingly coquettish as to when — or if — it will add support for the iMac. Meantime, it'll work with Infowave's PowerPrint converter cable. Hewlett-Packard, 800-552-8500, Infowave, 800-663-6222



Return of the SuperDisk

Information's SuperDisk, warming many a heart as a high-capacity floppy solution for the iMac (it works with standard floppies and special 120MB high-capacity media), is starting to get around a bit. Storage stalwart Mitsubishi Electronics recently announced MediaPak, an innovative union of the SuperDisk and a 24-speed



CD-ROM drive (with an average access time of 100 milliseconds), taking up only a single standard 5.25-inch drive bay. MediaPak will retail for about \$245 for an internal IDE version, while internal and external SCSI models cost \$295 and \$335, respectively.

For the upwardly mobile, VST Technologies announced a SuperDisk module for G3 PowerBooks. The 11.5-ounce system, which uses a slimline version of the drive designed specially for the notebook market, will set you back \$220.

Mitsubishi, 408-730-5900

VST Technologies, 978-263-9700

War of the Disk

Alsoft, those wonderful people who brought you PlusMaker (for formatting your disks to Apple's HFS+ spec), now bring you DiskWarrior, a fearsome new utility for repairing and optimizing directories on HFS+ volumes, be they SCSI or IDE.

This \$70 program differs from conventional disk-repair programs in that it builds new directories using recovered data, thereby enabling users to recover files that were thought to be unretrievable, Alsoft says.

Owners of Alsoft's DiskExpress Pro may purchase the program for \$40. Alsoft, 800-257-6381

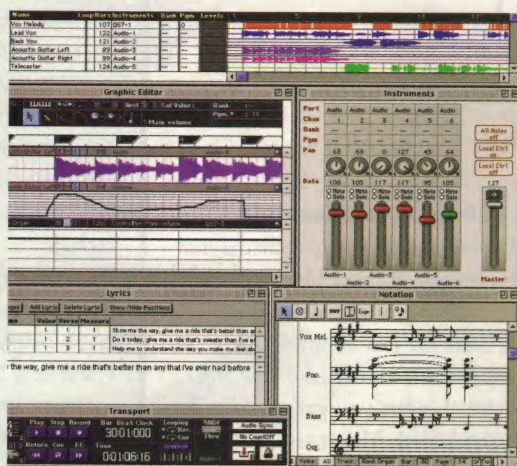
Metro 4 Adds Notation

Cakewalk recently souped up its superb Metro digital audio recording/MIDI sequencing package to include professional scoring features. Dubbed Metro 4 with Notation, the program supports note entry directly from a connected MIDI instrument or by placing notes with the mouse. Any changes made to a MIDI file are immediately reflected in the notation, Cakewalk says, making the package a pretty darned complete composition toolset.

The software includes various tools to aid compositions, such as Note Spray, for random note placement, and Rhythm Explorer, for trying out various types of rhythms. Additionally, Metro sports real-time audio-processing effects for parametric equalization, delay, flange, chorus, and reverb. The package supports audio-processing plug-ins for Adobe Premiere and audio programs supporting Cubase's VST architecture.

Metro 4 with Notation costs \$199; users who purchased the regular version 4 after September 1, 1998, can upgrade for free. Those who purchased Metro 4 before then can upgrade for \$19, while owners of Metro 3 and 1 can upgrade for \$79 and \$119, respectively.

Cakewalk, 800-333-8663



0 Epson, My Epson

Who wouldn't like to have 1.25 million pixels to play with? Well, with Epson's PhotoPC 750Z digital camera, you can. The \$599 camera will include a 2-inch color LCD that can use sunlight for added luminescence in outdoor settings. Sporting both 24-bit color and grayscale modes, the camera can take pictures in 1600 x 1200, 1280 x 960, and 640 x 480 pixel resolutions. Additionally, you can set the camera for multiple shots, either two 640 x 480 images per second, or one 1280 x 960 shot every three seconds. Also included: A motorized 3X optical zoom and a panorama mode, for properly capturing the majestic vistas awaiting you in the heartland.

Though it will certainly work with the Mac, this camera can actually print directly to a printer! An Epson printer, that is — it'll work with the Stylus Photo, Photo 700, and Photo EX models, as well as the Stylus Color 600, 800, 850, and 740 inkjets.

Epson, 800-463-7766



notably new!

Optique has asserted its place in the world of flatness, releasing a 15-inch flat-panel LCD screen. The 11.4-pound L700 supports resolutions up to 1,024 x 768 pixels and costs \$979. *Optique, 800-843-6784*

Microtech has dropped the price on its PhotoAlbum PC Card reader, a SCSI interface for transferring data from PC Cards and flash memory cards, such as SmartMedia and CompactFlash. The reader had been \$299; now it's just \$199. *Microtech, 800-626-4276*

Orange Micro has a new DOS card that's specifically designed to play Windows games on PCI Power Macs. The PCfx! card, priced at \$649, runs at 44 frames per second and includes a 128-bit nVidia RIVA video chip for fast 3D performance. It uses a 200MHz Pentium processor, 32MB of RAM, and 4MB of VRAM. *Orange Micro, 714-779-2772*



Kensington just released SuperShelf, a line of six keyboard drawers to keep the workplace neat and tidy. Attaching with under-desk clamps, these range from \$35 to \$140. *Kensington, 650-572-2700*

Case Logic says you can take it with you — in the new NCL line of notebook cases, featuring the look and feel of hand-tooled leather. From \$100 to \$150. *Case Logic, 800-447-4848*



Brother, Can You Spare an iMac?

Apple Launches Low-Interest Loan Program

Sure, you'd like an iMac. It's just that \$1,300 or so represents a pretty major purchase. Apple feels your pain and consequently has launched a new consumer loan program to help you get your paws on one of those blue-and-white wonders, or some other piece of merchandise, without suffering financial malaise.

Through the Apple Loan program, you can get an iMac for just about \$30 a month, with (at the risk of sounding like a used-car dealer) no down payment and no payments for six months! Apple's Steve Jobs says the plan lets you get an iMac for the price of three pizzas per month (though a quick check with Mountain Mike's Pizza in Mountain View, California, shows average prices of \$13 per pie, raising this figure to roughly \$39 per month — the iMac's a better deal).

Apple resellers, including CompUSA (but not Best Buy; it has its own financing), are participating in the program, which has an annual percentage rate of 14.89%. Consumers can qualify for up to \$7,500 per loan and must buy at least one Apple CPU or monitor in their initial purchase. After that they may use the loan to purchase software and peripherals from any vendor. Apple says the approval process should take less than five minutes in most cases.

Apple's program stipulates a 67-month payment program, which works out to just over \$2,000. Internet service provider MacOnline (www.macol.com) has a similar promotion, but it includes an Internet account. The package deal costs \$70 per month for 36 months, or about \$2,520.

Consumers can get more information or apply at Apple resellers, over the phone, or through the Apple Loan Website.
800-277-5356, www.appleloan.com

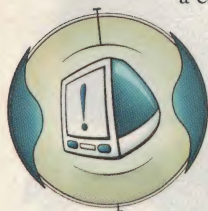
Speed, Video Boosts for iMac

Oh sure, the original iMac was cool, but apparently it wasn't cool enough for Apple, which announced a couple of changes to the original design. The blue-and-white wunderkind now sports 6MB of video RAM — a mighty substantial boost from the original 2MB, and one that actually maxes out the iMac's VRAM capacity!

Add to this a new video controller — the ATI Technologies Rage Pro Turbo graphics controller, which replaces the

ATI Rage IIC — with at least 2X acceleration in 2D and 3D graphics performance, according to one ATI spokesman. The new controller should double the frame rate of such games as Quake, said ATI, while providing better quality overall. Apple's Phil Schiller, VP of Worldwide Product Development, said, "Our number one goal with this change is to further improve the game performance of the iMac."

Software-wise, the new iMacs include OS 8.5 and are now bundled with Adobe's PageMill 3.0 for those legions of budding Web masters out there.



Coming Soon: USB to SCSI!

Longtime storage vendor Microtech has big plans for USB products, including a USB-to-SCSI converter that will let iMac users connect their old SCSI drives. The \$79 converter won't be as fast as SCSI, and the first iteration won't support scanners, but the company says it will provide a reliable SCSI chain for the iMac that will work with all types of storage.

The company said it hopes to ship the converter in time for the January 1998 Macworld Expo in San Francisco, California.

Microtech, which also makes iMac memory, is preparing a multi-slot USB PC Card reader for early 1999.

Microtech, 800-626-4276

La Cie, Come Home

The storagemeisters at La Cie have come out swinging with a new external USB hard drive for the iMac. The EKO drive is available initially in a 4GB model for \$299, though other capacities are in the works. It has a sustained data-transfer rate of 0.8 Mbps and a seek time of under ten milliseconds, La Cie said. USB drives are hot-swappable, meaning you can disconnect and reconnect them without powering down.

La Cie is also preparing an external USB DVD-ROM drive, as yet unpriced. The company says the drive is not intended to play DVD movies but is rather for general-purpose storage.
La Cie, 800-999-0143



Newer Preps iDrive, iHub

Newer Technology

is joining the blue-and-white revolution with iDrive, a rakishly styled 1.44MB floppy drive for the iMac. Slated to ship in the first quarter of 1998, the iDrive will act just like your standard floppy drive, initializing disks in Mac, PC or the fabled ProDOS format. But it won't do high-capacity disks such



as SuperDisk. Newer said the drive will sell for approximately \$100. Newer also plans an early '99 release for the iHub, a seven-port USB hub with a similar design. All seven ports will be powered via a power adapter. The iHub will cost about \$79. Both the iDrive and iHub will be "stackable," in the LEGO sense of the word.

Newer Technology, 316-943-0222

Fight The Power!

Stupid power surges. Threatening

the very existence of your fragile electronics. Holding the potential to scramble your iMac's intricate internal network of levers, fulcrums and pneumatic tubes.

But fear not. Belkin Components is in the house with SurgeMaster II for iMac, a surge-protected eight-outlet power strip (it also protects your phone line) in those very relaxing iMac colors.



Belkin has designed the SurgeMaster II to accommodate large AC adapters, which are commonly used for peripherals. The \$40 strip comes with a \$35,000 warranty for connected equipment.

Belkin does not sell components directly; this and other products are available at major computer retailers.

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major computer retailers.

Arrr, Matey! 'Tis SanDisk's USB PC Card Reader

Those of you with digital cameras

— and there are many — should be pleased to hear of SanDisk's new ImageMate, an external USB reader and writer for those little CompactFlash cards (which store



anywhere from 2 to 48MB of data) that are in widespread use in photographic and other circles. The little \$89 device, which looks rather like an oversized spermatozoa cell, can transfer the contents of a 10MB card to an iMac in about 20 seconds, the company said. And in a surprise twist, the ImageMate needs no external power supply, drawing its current directly from the USB port.

SanDisk, 408-542-0500

Kodak Announces iMac USB Support

Kodak has posted beta of USB

drivers on its Website, at www.kodak.com/golimacUSBbeta.

The drivers, which require Mac OS 8.5, will let users

of the Kodak DC620 or DC220, the first portable USB cameras, to

transfer images directly to the iMac.

When the software is finalized, Kodak said it will include a Photoshop plug-in for supporting older Mac systems through serial connections (such a setup would require a USB-to-serial converter). Kodak also said USB support for PCI add-in cards will be included in the finished version.

Kodak, 800-242-2424



What the World Needs Now...

Is another USB-to-serial adapter for the iMac.

And that's what the \$79 Keyspan USB Serial Adapter is.

Keyspan points out that it has not one, but two serial ports, "unlike the single-port solutions available from competitors." Meecow!

Keyspan, 510-222-0131



Speaking in (USB) Tongues

L Cool J once sang the praises of his

"Boomin' System," and now Philips Consumer

Electronics is bringing just such a system to iMac owners. Replete with a subwoofer and two satellite speakers, the \$170 DSS370 USB Speaker Set can blast you out of your seat with

60 watts of power, even adding surround sound and bass boost if you want it.

The speakers operate with traditional analog connections, and soon will offer digital audio transferred over the USB circuit. Apple, Philips, and others are working on implementing audio over USB, but as of press time no official date has been set. Nor are Philips' speakers iMac-colored.

Philips, 770-821-2400





our deepest apologies to pc users, but Yoot™ Tower is coming out on mac first. get your copy at yootmacfirst.com.

stocking

stuffers

Socks. Bars of scented soap. Pieces of chocolate imprinted with the image of heavysset bearded men. These are the traditional components of small holiday gifts — items salespeople looking over cash registers engorged by infusions of holiday cash like to call "the stocking stuffer."

This year, we went straight to the source, asking Mac zealots what they really want to see this holiday season. You'll find no candy canes, no tea cozies, no lumps of coal here. We've channeled the most primal needs of the Mac user — and unearthed everything from a collective yearning for System 8.5; to obscure requests, such as a hankering for a Mac OS 8.2 completely optimized for 68K machines (keep dreaming); and all kinds of things in between.

MacHome

Thinks

Differently

About the

Holidays



by Anne Marie Feld

Mouse Rugs

Even if they have everything, they probably don't have this. To your right, you'll find the Lextra Mouse Rug from FiberLok. Designed to look like rugs made in Pakistan, Iran, and the Southwestern US, the (\$20) rugs blow away that grotty mouse pad you got with your Mac or from some cheeseball promotion, and it keeps your mouse ball clean thanks to seven million individual little mouse-hugging fibers. The designs are made by scanning existing rugs, and then the rugs undergo "multicolor electro-static direct fiber coated heat transfer," a.k.a. the Lextra fiber coating process, which, translated, means firing the fibers into the pattern with 50,000 volts of electricity. Pretty nifty.



Fiberlok, 800-896-2314, www.mouserug.com

Reanimator

When CDs first came out, the data layer inside was touted as being virtually indestructible, and it seemed as though the good times would last forever. But the polycarbonate that holds the metal layer on which the data is inscribed is as prone to scratches as a pair of glasses, resulting in skipping or unreadable CDs. Wipe Out! repairs scratched or otherwise damaged CDs, CD-ROMs, and DVDs, effectively bringing your damaged disk back from the dead.

Esprit Development Corporation, \$15, 908-284-0426, www.cdrepair.com



Flash, Whoa

What's fast, light, and can sustain the shock incurred when dropped from heights of eight feet and less? Flash — the lowest-cost, non-volatile semiconductor read/write storage technology available. SanDisk's Compact Flash cards work in digital cameras, personal communicators, medical monitors and audio recorders. Prices start at around \$60 for 8MB, and head up from there. Its ImageMate will transfer images from Compact Flash Cards from a digital camera to an iMac with no fuss. (See Eye on iMac, p.27 in this issue for more details).

SanDisk, 408-542-0500, www.sandisk.com



Color Me Bondi

As one reader so eloquently put it: "The audio speakers on the iMac suck, so two satellites and a subwoofer would be nice, but I'm waiting until some bright-eyed company makes them to match iMac plastics." Japanese manufacturer Uchishiba recently released the Cozo speaker, with sexy sides of Bondi blue, for the low, low price of 12,800 yen — alas, no American distributor as of yet, we'll keep you posted.

For those unwilling to dabble in currency conversion and foreign markets, Philips has a handful of digital and analog USB speaker setups, ranging in price from \$40 to \$200, depending on how you feel about a subwoofer, but you're going to have to settle for beige.

Uchishiba, www.uchishiba.com

Philips, 770-821-2400, www.philips.com



The Dreamers

A beta version of the iBook, or whatever they will call it" is what one reader, referring to Apple's tantalizing, unreleased consumer portable, is pining for. They're scheduled to appear at the end of the first quarter of this year, a little more in tune with Saint Patrick's day than Christmas. As for getting a beta version ... do you still believe in Santa?

Apple, 800-538-9696, www.apple.com

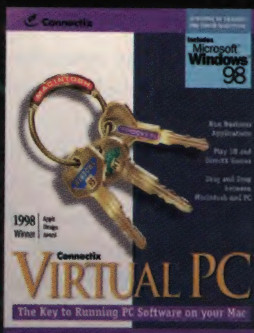


Got Mac? Get Connectix!



Connectix Corporation 2955 Campus Drive San Mateo, CA 94403
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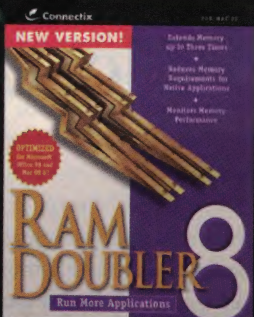
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Virtual PC

Now your Mac can do Windows!

Run the latest PC software on your Mac with Connectix Virtual PC™, including games, popular business and home applications. Available with DOS®, Windows® 95 and Windows 98.



RAM Doubler 8

Run More Applications Simultaneously!

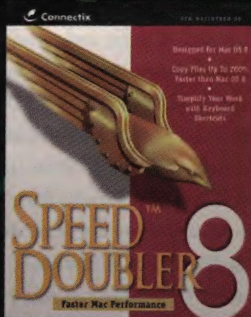
Run the newest Mac OS and Microsoft Office™ 98 suite on your iMac with RAM Doubler 8™, without the hassle of adding more memory.



Surf Express Deluxe

Surf and Search the Internet Faster!

Surf Express™ is the award winning web-accelerator, recommended by cnet, ZD Net, PC Computing and Mac Addict. Works with both Mac and PC.



Speed Doubler 8

Speed up your Mac!

"steroids for the Mac" (Mac Addict). Your Mac will perform at its best with this perfect compliment for OS 8.5. Run software up to 100% faster. Back-up your files quickly, easily and automatically. And much more.

Compatible with Mac OS 8.5

Inside 8.5

Apple's latest OS is an embarrassment ... of riches

By John Poultney

You're gonna like **Mac OS 8.5** a lot ... but it may take a while.

Apple has done an amazing amount of work on OS 8.5, and it shows. And while at first, OS 8.5 does not appear to be radically different from earlier operating systems, to quote a popular tire ad, "*You can feel it when you drive.*"

While we do recommend going out and purchasing 8.5, Apple will likely make updates available soon, so you should download those as well. Not because there's anything all that wrong with Apple's latest, ahem, "must-have" upgrade. It's great, but make sure you've backed everything up before you install it.

Because it's a major upgrade, it does have a few areas left to improve (see sidebar, "Hey Emptor! Caveat!"). This is typically the case with such major releases — a monolithic update followed by small "maintenance releases" that do such things as tune up video performance or improve data-transfer operations between applications.

Burn Rubber

Many of OS 8.5's underlying changes are invisible to the user. But I noticed a speed boost immediately after



installing the system; most applications launched noticeably faster than they had under OS 8.1. Images appear on the screen faster under 8.5 because QuickDraw, the part of the OS that draws objects on your screen, is now entirely PowerPC native. Before, portions of this had to run in the slower 68K-emulation mode.

Another underlying technology, Open Transport, which is used for network communications, has been updated as well — to version 2.0.1 — and provides a substantial speed boost in many network scenarios. Apple has touted this boost several times lately, and we did see some acceleration. However, as our tests used standard Ethernet (10 Mbps) rather than Fast Ethernet (100 Mbps), the boost was not as dramatic — only about a 5% boost — as it could have been.

The new OS has a cohesiveness not seen in prior releases, demonstrated in such niceties as anti-aliased screen text, new proportional scroll bars that adjust in size based on how much of a window's content is visible, and "live" scrolling, in which a window's contents move up or down at the same time the user moves the scroll bars. Apple also has consolidated many functions and bolstered some old

standbys. The Appearances control panel, for example, now contains controls for Themes, or combinations of desktop patterns, fonts, and colors, that you can save and recall as you like.

Alas, the OS doesn't support radically altered interfaces involving altered scroll bars, titles, menus, windows, and other interface elements, as can be accomplished with the popular shareware utility Kaleidoscope.

A new Internet control panel consolidates users' preferences, passwords, and accounts for e-mail and Web access, and the Get Info command now enables file sharing and lets you adjust memory allocation from the same window. You can now rearrange the order of sort columns in a list window, except for the Name column, which must remain on the right side, and you can opt to display the currently running application's name (not just its icon) in the screen's upper right corner. And get this — you can switch applications by using Command-Tab. Shades of Windows!

There are myriad other small changes — too many to list here — but see this issue's Back to Basics, page 12, for more cool tidbits. Expect to see software packages, especially from the big Mac vendors, support OS 8.5's new Open/Save dialog boxes before too long: These are new boxes that let you navigate through your files in a more natural way, easily retrieving recently accessed files without undue searching, and renaming them on the fly if desired. You can add files, URLs, servers, and what-have-you to your Apple menu with a new control panel called Favorites, which acts like Bookmarks in a Web browser, but works for any type of file — e-mail address, URL, and so on. The PPP (Point-to-Point Protocol) control panel has been replaced with one called Remote Access (previously used with Apple Remote Access (ARA)), which lets you store con-

figuration information for either PPP or Apple Remote Access Protocol (ARAP) connections.

If you like sounds, you may enjoy OS 8.5's new Soundtrack feature, which is

activated through the Appearance control panel. With this function enabled, just about every action you make, be it opening and closing windows, selecting

items, or opening menus, makes some kind of wry little sound effect.

Beggars Can't Use Choosers

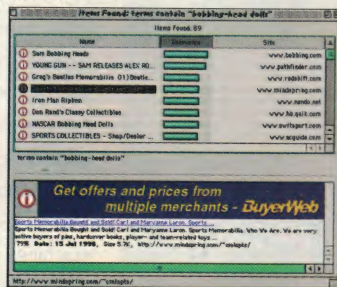
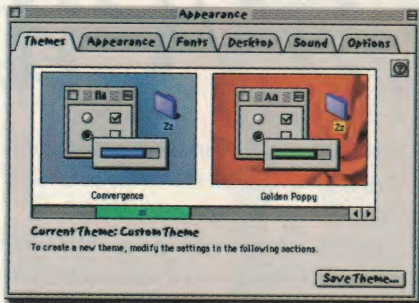
OS 8.5 introduces the Network Browser, which lets you peruse the ancillary volumes and servers on your network as though they were merely files in your system. I rather like this feature — it

even lets you use hierarchical arrows for quick browsing. OS 8.5 product manager Peter Lowe says the Chooser still lives — in fact you still have to use the Chooser to switch printers — but the Network Browser looms large in Apple's future.

The Network Browser lets you access recently connected volumes and add servers to your Favorites without needing to open that control panel. Additionally, a Connect to Server function lets you enter the IP address for any AppleShare server anywhere in the world.

Release the Hounds

One of the most ballyhooed components of 8.5 is Sherlock, Apple's innovative file- and Web-searching system that lets you enter natural-language queries and get results ranked by relevance and, in the case of URLs, summaries of content. One tester remarked, "It's a whole



The Game is Afoot!

To work with Internet search engines, OS 8.5's innovative Sherlock search function relies on small files called plug-ins, one for each site. Just as Sherlock will not work with a disk drive that has not been indexed for searching, it can't work with an Internet site that doesn't have a corresponding plug-in. But once you have the plug-ins, watch out, world! This function searches multiple Websites faster than you can say, "Curse you, Moriarty!" Plug-ins, by the way, are used with specific applications like Sherlock, PhotoShop or Navigator..

Sherlock comes with plug-ins for several popular search engines, like Yahoo!, Lycos, and Excite. A comprehensive, growing list and downloadable archive are available at www.apple.com/sherlock/plugins.html. Among these are plug-ins for the Macintosh Product Guide, *Wired's* HotBot, Barnes & Noble, CNN.com, and Apple's own Website.

Apple promises more, and in fact the page touts plug-ins for Music Boulevard, the Internet Movie Database, and CD-Now as "coming soon." These weren't yet available at press time, but *MacHome's* plug-in is; you can find it at www.machome.com/index/sherlock/machome.src.hqx



Hey Emptor! Caveat!

Because the operating system is truly your machine's central nervous system, you should take a few precautions before installing 8.5 or, for that matter, any operating system. There have been a number of reports of data corruption and incompatibilities after installing this system, and while the source of such problems is far from certain, you can save yourself much potential heartache by performing a basic backup operation using software such as Retrospect Express or DiskFit Direct, both from Dantz Development Corp. Or ASD Software's Personal Backup. For a *MacHome* tutorial on the topic, see our June 1998 issue.

Apple also recommends updating any disk drivers (specialized pieces of software that help a computer communicate with hardware devices) in your system prior to installing OS 8.5, as the new system prefers to have the latest and greatest for all of its digital machinations. When you install the software, you'll get the option to update the Apple drivers (those that Apple itself provides). While you are able to skip this step, it's not a wise move. If you use removable volumes, such as Iomega's Zip or Jaz drives, the OS 8.5 CD won't be able to update those drivers. Instead it will advise you to check with the drive's manufacturer to obtain the most recent driver.

Additionally, you should make a copy of your Preferences folder (in the System folder), which stores data about how you use your applications. Sometimes, installing a new system will wipe this folder clean, and you may find yourself needing to enter new data before using your software. This can be a frustrating experience, to say the least, so it's a good idea to have a set of spares, so to speak. After you restart with the new system, try out your applications. If they don't work the way they used to or ask you to configure them again, chances are the preferences have been lost. If this happens, take those backed-up preferences files and copy them to the Preferences folder within the 8.5 System folder.

What sorts of trouble might you expect? Well, you might not have any. But you might experience crashes, applications that refuse to run, slower performance than you had before, and, possibly, lost data. (So again, back up before installing.) The "lost data" syndrome is under debate, as it turns out, because there have been quite a few reports on the prominent Mac Websites Macintosh (www.macintosh.com) and MacFixIt (www.macfixit.com) of "data corruption" and even some damaged

disks. While I experienced no problems during my evaluation, I was careful to install OS 8.5 on an external disk first, rather than on the main one I use, just in case.

So far, I've experienced very little in terms of lost files. However, I did run into a little trouble when running OS 8.5 from an external drive, when RealPlayer refused to run because it couldn't find its preferences files, which were still located on my internal drive.

Another user at our site, using a Power Computing PowerTower 180 with a Micropolis 4221 AV drive (standard equipment on most of these models) did experience lost data and hard disk problems after installing 8.5. However, it turns out he did not update the drivers first.

Apple has received a number of complaints about the disk problem, and says it is thoroughly investigating them. In an interview with the *San Francisco Examiner* in late October 1998, Apple spokesman Russell Brady said the company had not been able to replicate the trouble in-house and that Apple would make a patch available if a specific problem were found.

OS 8.5, according to Apple, is compatible only with Apple-brand PowerPC systems; it doesn't officially support clones or 68K machines using an upgrade card. So you might be able to make it work, but you might not. The problem we observed at

MacHome involved a clone system, and indeed ex-cloner UMAX says that it does not support any system past 8.0 on its machines. The company has posted an extensive report on its Website (at www.supermac.com/service/os85caveats.html), in which it details disk drive problems that ostensibly trace back to FWB Software's hard disk drivers or other causes. Though Apple and UMAX agree that the problems will likely impact a small number of users, Umax nonetheless includes the ominous disclaimer, "If you lose your hard drive due to this issue, UMAX can do nothing to help you recover it and will not replace your drive under warranty." So back up, back up, back up!

You should also determine the type of install you need. A standard install leaves your preferences and third-party system software as is, while a clean install wipes out your old system folder. Apple says most users will have good results with standard installs. If major troubles crop up, it's best to back up, reformat and do a clean install. After all, the object is to swear by one's system, not *at* it.



Get Ripped with AppleScript

AppleScript, Apple's language for controlling communications between the Mac OS and ancillary programs, can theoretically be used to automate just about any operation you can think of. From something as mundane as checking your e-mail at a preset time to a complex series of file conversions and graphics processes, AppleScript can do it all.

With OS 8.5, Apple has expanded the capabilities of AppleScript to include the entire Finder, so you can accomplish much more. And it's the first PowerPC-native version, so it's much faster than before. With a little ingenuity, you can attach scripts to shared folders so that you're notified whenever another user adds or modifies a file therein. Or you can set up a script that causes specific modifications to any files placed in a folder. For artists, a new application by Main Event (www.mainevent.com) called Photoscripiter uses AppleScript to accomplish an astonishing variety of tasks with Adobe's Photoshop.

But by Apple's own admission, though, AppleScript is not for everyone. Nor do all applications support Applescript. While it's not a programming language, it does resemble one in that a typical script is a rather intricate collection of commands that relies on precise directions to complete a task. In this regard it could be classified as a "high-level" programming language: It uses a simplified script to tell the computer to perform complicated actions. The closer one gets to the actual binary interactions of a computer (sometimes referred to as "machine language," because the transfers of signals representing zeroes and ones are what a system uses at its most basic level), the more "low-level" the programming language.

But don't let all this mumbo-jumbo get you down. Put simply, AppleScript (a part of the OS since 7.5) can do some cool stuff. In fact, you'll notice under the Apple menu an item called Automated Tasks, with such actions as "Add Alias to Apple Menu" and "Share a Folder." When you run one of these tasks, you're activating AppleScript and running a script that, in part, looks something like this:

```
tell application "Finder"
    set theList to selection
    if (count items in theList) = 1 then
        if class of item 1 of theList is application file then
            if name of (info for (theList as alias)) is "Add
            Alias to Apple Menu" then set theList to {}
        end if
    end if
end tell
```

You can modify or create your own scripts using an application called Script Editor, which is installed with the OS. But as you can see, it does resemble a programming language, and it would obviously be no picnic to create a script on your own. If you're interested in learning more, Apple has a good basic tutorial online at www.applescript.apple.com/applescript_overview/toc.html.



new way of searching, and once you're used to it you'll never use a regular search engine again." I don't know about that last part, but I did find Sherlock's sleuthing capabilities to be very impressive. You can set the software to search multiple sites at once, and you can, in turn, add or omit sites at will (you need a Sherlock plug-in for Internet searching; see sidebar "The Game Is Afoot!").

Additionally, if you have a disk drive you want to use with Sherlock, you must index that volume first. This is a way to prepare a drive's textual content for fast searching, and can take a little while to do. I was able to index a 2GB drive in about 15 minutes, though it wasn't entirely full. Once it was done, Sherlock worked swimmingly, easily finding documents with specific words hidden inside, and the process was much faster than searching with the previous Find File function.

But it's with the Internet that Sherlock's detective prowess really comes through. I found searching with this tool to be far superior than using a search engine, especially given the relevance rankings and summaries for each returned URL. And get this — if you want to save an URL for later, you can simply drag it to the desktop, where it becomes an alias of sorts. Click it and you'll go right to that Website. Extraordinary!

Sherlock is outstanding, though it doesn't make search engines obsolete. Many search engines provide personalized news, classifieds, and other enticements. Sherlock doesn't do that, but if you're searching for specific content it's the way to go.

The Envelope, Please

OS 8.5 is a great piece of software and one that goes a long way toward extending your system's capabilities. It's not exactly "a new Mac for \$99," but it gets a definite thumbs-up. Do expect a little tweaking to get everything working as before the upgrade. And again, back up before installing. **III**

rating



Mac OS 8.5
\$99, Apple Computer
800-538-9696, www.apple.com
PowerPC Required

Astounding searching functions, faster than previous systems, lots of new features, consolidated operation

May introduce incompatibilities, network speed boost negligible with low-speed networks



Remember when you could see big blurry dots in a computer monitor?

Remember when most computers came with 12-inch monitors? When 640 x 480 was considered high resolution?

In the past few years, the 15-inch monitor has been the most popular display accompaniment to a Macintosh, mostly because of its low cost. Seventeen-inch monitors have been the most popular upgrade, because they were the next step up in cost and desktop size. Most 21-inch monitors were out of reach for most of us because they were so expensive. Also, they could buckle our puny desks.

Last year, however, a new breed arrived — the 19 inchers. They hit a sweet spot in the market: While they offer roughly 25% more screen area than a 17-inch monitor, many take up no additional desktop space. Better yet, because monitor prices have fallen in the last year, you can now get a 19-inch monitor for the price of last year's 17 incher. Some are really good products, even at those lower prices.

Hey 19

Thirteen 19" monitors have much in common

By Alan Stafford

B Flat, B Sharp

The 19-inch models have become technological showpieces, too. A few of the monitors here boast screens flatter than we've ever seen — even ruler flat. Flatness has been the ultimate goal with monitors, because it reduces eye strain: The flatter the monitor, the less your eye needs to change focal points.

Many use "short-neck" cathode ray tubes (CRTs) so that their cabinet size remains about the same size as 17-inchers'. But the basic tube types remain the same — Invar shadow mask and aperture grille. A shadow mask is a metal plate that's placed behind the external glass; it's honeycombed with holes, through which the monitor's electron gun fires electrons. Depending on the angle at which the electron goes through, it excites a red, green, or blue phosphor on the other side of the plate (on the inside of the glass). The combination of electrons firing and phosphors glowing creates the image on your screen.

An aperture grille is similar in that it still uses an electron gun to excite phosphors, but the phosphors are arranged in stripes, rather than in circular groups. You can identify an aperture grille monitor by two very thin lines (wires, actually) running horizontally across the screen. These wires hold the aperture grille in place.

There's one downside to a 19-inch monitor — because of its size, you'll need at least 4MB of video memory to get the most out of it, so you may need to purchase a video card to drive it.

While all of these monitors can push at least 1600 x 1200 resolution, few people will want to look at resolution that high for long. More comfortable views are 1024 x 768, or 1280 x 1024. A monitor's refresh rate (the rate at which the screen is redrawn) also is important. 75Hz (the screen is refreshed 75 times per second) is considered a baseline for comfortable viewing; anything lower indicates noticeable flicker and induces eye strain. All of the monitors we tested were capable of at least 100Hz refresh rates at 1024 x 768 resolution; some were capable of even greater refresh rates. Consequently, none of the monitors here exhibited any sign of flicker. Another trait we've seen in the past, hot or cold (bright or dark) spots in areas of the screen, didn't show itself in any of the monitors here.

We judged 13 monitors on the basis of image brightness, contrast, sharpness, color accuracy and vibrancy, and controls. Here are the results, in alphabetical order.

ADI MicroScan 6P

The ADI is a full-sized 19-inch shadow mask monitor — meaning it isn't a short-necked model — but it isn't too much larger. Power cables attach to the underside of the rear of the monitor. As do a couple other monitors here, USB ports, as well as a microphone, are built into the cabinet.

Image quality, compared to the stars in this group, was so-so. If you make the display comfortably bright, the contrast washes out. Colors just didn't "pop" the way they did with the Sonys, for example. Text was reasonably sharp, but too much contrast made it less readable.

The 6P's controls were adequate — one button for up, one for down, and one in the middle for selecting. Navigation is easy enough, but the buttons are too small. A single-function moiré control is included (moiré is a wavy distortion of the image, either horizontal or vertical); it had little effect, but moiré wasn't a problem.

Hansol Mazellan 900P

The 900P is another regular-sized monitor, but one with some surprising pluses. There's some innovation here. It uses a single, silver dollar-sized wheel smack dab in the center of the lower bezel; you press it to select an option, then rotate the wheel with your finger to make adjustments. It could use a Kentucky steering wheel knob, though; it's too easy to press when you want to rotate. Neat idea, though.

Image quality is good; brightness and contrast are fine, if not eye popping, and text is sharp. I couldn't quite get the 900P's upper left corner to square off, despite fiddling with the monitor's numerous controls. Hansol includes controls for both vertical and horizontal moiré, and they have more effect on the image than with any of the other monitors by far.

A nice Mac touch: The monitor comes with a cord that has an HD-15 VGA plug on one end and a Mac plug on another. If you're using a PC, you plug the Mac end into the monitor and the VGA into the PC; if you're using a Mac, you just reverse the cord (there's a different plug on the monitor). So, you don't have to use an adapter, as we did with every other monitor we tested. One of these days, we hope, Apple will get a clue and change to VGA adapters on their computers.

If you do buy a new monitor (other than the Hansol), make sure you request a Macintosh adapter. Otherwise, you'll have to buy one at a cost of \$10 to \$20.

Hitachi SuperScan 753

The Hitachi's controls are a pain, especially if you are working in low light; they're strung out all in a row, and you must push one button in the left bank, then push either of a pair of buttons on the right side, sometimes in combination with others — Argh! However, you do get two related functions onscreen at a time.

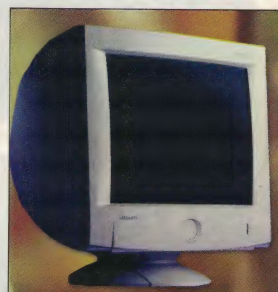
The image is a little dark compared to the Sonys, the Mitsubishi, and the LaCie, if you've adjusted it so that the contrast is correct. Text is reasonably sharp, though. The screen is curved more than most, and there's some minor distortion at the top of the screen if you extend the image to the edges of the display.

LaCie electron19blue/ Mitsubishi Diamond Pro 900u

When Mitsubishi showed us its new ruler-flat



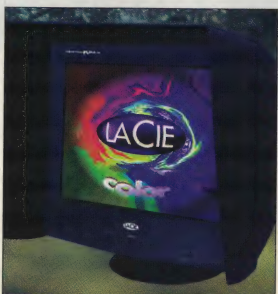
ADI MicroScan 6P



Hansol Mazellan 900P



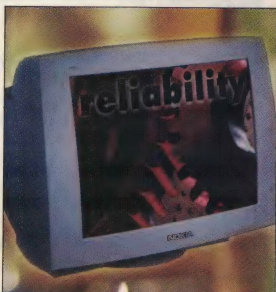
Hitachi SuperScan 753



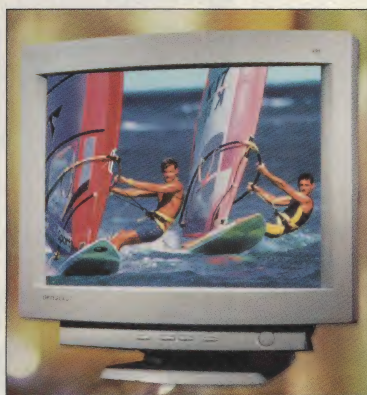
LaCie electron19blue



Mitsubishi Diamond Pro 900u



Nokia 446Xs



Optiquequest V95



Philips Magnavox 109S

monitor in early September, it hinted that other vendors would also use the tube, though after Mitsubishi had brought its own to market.

However, a couple weeks later, LaCie released its electron19blue, which uses not only the same tube but also the same cabinet (though colored blue) and the same controls. For all practical purposes, it's the same monitor as the Mitsubishi, though it's \$100 less and LaCie throws in a hood that shades the monitor from external glare. That's useful for professionals concerned with color matching and the like; for the rest of us, it can be a bit of a help, but mostly just looks cool.

The screen is amazing. Mitsubishi says it curves the inside of the tube's glass instead of the outside, and yes, the outside is as flat as window glass. It's so flat it looks concave. Even so, the image is sharp from edge to edge; text is especially sharp and easy to read. The image is very easy on the eyes — not too bright, not too dim. Items on the screen look good even

if you've set the display to be too dark. It exhibits no moiré pattern whatsoever. The color isn't as vibrant as the Sonys, but it seems quite accurate.

The controls, unfortunately, are the same on both the LaCie and the Mitsubishi. You get four hard-to-push buttons that are shaped like fingernails; sometimes they activate, sometimes they don't. You select a row of choices with one button, then hit a Proceed button in the middle, then use the last two buttons for up and down. It's hard to tell if you've hit Proceed (the ends of a bar blink), and you can't get out of the function unless you hit Proceed again. You're going nowhere fast with this setup.

There is a truckload of controls, but it's aggravating to get the monitor set up the way you want it. But you'll get there, and the gorgeous screen will make it worth the effort.

Seeing as the LaCie is \$100 less, we'd opt for it. Don't feel sorry for Mitsubishi; it still makes a little dough on the tube.

Product

	Maximum resolution	Viewable dimension (inches)	Tube type	Cabinet depth	Warranty length
ADI MicroScan 6P , 800-228-0530 www.adiusa.com	1600x1200@75Hz	18.0	Invar shadow mask	19.2 inches	42 months
Hansol Mazellan 900P , 888-426-7651 www.hansol-us.com	1600x1200@75Hz	18.0	Invar shadow mask	18.5 inches	5 years (CRT, 3 years)
Hitachi SuperScan 753 , 800-441-4832 www.hitachidisplays.com	1600x1200@85Hz	18.0	Invar shadow mask	18.1 inches	3 years
LaCie electron19blue , 503-844-4500 www.lacie.com	1600x1200@75Hz	18.0	aperture grille	17.9 inches	3 years
Mitsubishi Diamond Pro 900u , 800-843-2515 www.mitsubishi-display.com	1600x1200@75Hz	18.0	aperture grille	17.9 inches	3 years
Nokia 446Xs , 800-296-6542 www.nokia.com	1600x1200@75Hz	17.8	Invar shadow mask	16.7 inches	3 years (CRT, 2 years)
Optiquequest V95 , 800-843-6784 www.optiquequest.com	1600x1280@76Hz	18.0	Invar shadow mask	18.0 inches	3 years
Philips Magnavox 109S , 800-835-3506 www.monitors.be.philips.com	1600x1200x75Hz	17.9	Invar shadow mask	18.6 inches	3 years
Princeton Graphics AGX 900 , 800-747-6249 www.prgr.com	1600x1200@76Hz	17.9	aperture grille	18.7 inches	3 years
Princeton Graphics Ultra 90 , 800-747-6249 www.prgr.com	1600x1200@75Hz	18.0	Invar shadow mask	19.1 inches	3 years
Sony Multiscan CPD-420GS , 888-531-7669 www.ita.sel.sony.com	1600x1200@75Hz	18.0	aperture grille	18.0 inches	3 years
Sony Multiscan GDM-400PS , 888-531-7669 www.ita.sel.sony.com	1600x1200@75Hz	18.0	aperture grille	17.9 inches	3 years
Viewsonic PS790 , 800-888-8583 www.viewsonic.com	1600x1280@76Hz	18.0	Invar shadow mask	16.3 inches	3 years

Nokia 446Xs

The Nokia is the oddball of the bunch. That's a good thing and a bad thing.

First the good thing: The Nokia's navigational controls are by far the best of the bunch. The 446Xs uses a finger wheel on the side of the monitor and a single button on the front (just in front of the wheel). You select with the button and adjust with the wheel; you can set the monitor up quickly and easily with one hand. In case you change your mind, it tells you onscreen what your previous setting was. This is the way it should be done.

The image quality is middle of the pack; it's very bright, but sharpness is just average. The short-necked tube is one of the more curved ones, so it looks a bit old fashioned.

Now the bad thing: The screen size is the smallest, at 17.8 inches diagonally (that's the viewable measurement; it's a 19-inch tube, but the cabinet covers some of the tube). It's squat and rectangular. The

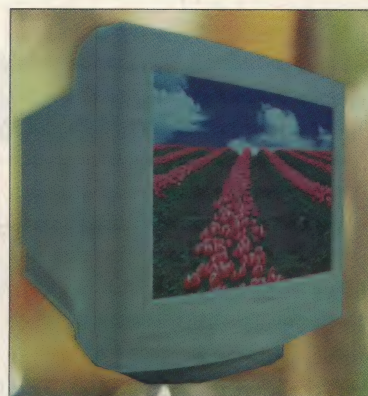
funky cabinet is squat also: the bottom of the bezel is only about an inch off the top of the desk, and the screen starts a mere three inches above the desk. Nokia says that's in compliance with a new ergonomic standard, but you may need a few books to see it comfortably.

Optiquequest V95

At \$535, the Optiquequest is about the same price as a good 15-inch model was in 1996. That price might make you leery (or attract you), but it's a pretty good monitor and a pretty good buy.

The V95's cabinet and controls look cheap compared to the more expensive monitors; the controls look like they came off of a washing machine. The controls are almost identical in function to those on the Viewsonic — understandable, because Optiquequest is Viewsonic's lower-priced line. The controls look different onscreen, but they work the same, and the buttons are closer together, so setting up is a bit easier.

The V95's image is a little dim, but it's



Princeton Graphics AGX 900



Sony MultiScan GDM-400PS

Sharpness	Controls	Screen flatness	Price	Overall Rating	Extras
★★★	★★★	★★★	\$550	★★★	USB ports, built-in microphone
★★★	★★★	★★★	\$599	★★★★	
★★★	★	★★★	\$679	★★★	
★★★★★	★★	★★★★★	\$699	★★★★★	USB ports, glare hood
★★★★★	★★	★★★★★	\$799	★★★★★	USB ports
★★★★★	★★★★★	★★	\$729	★★★★	USB ports
★★★★★	★★★	★★★	\$535	★★★	
★★★	★★★	★★★	\$569	★★★	
★★★★	★★★	★★★★	\$599	★★★★	
★★★	★★★	★★★	\$450	★★★	
★★★★★	★★★	★★★★	\$699	★★★★★	Front VGA connector
★★★★★	★★★	★★★★	\$850	★★★★★	
★★★★	★★★	★★★	\$749	★★★★	

still good enough for an average rating. Image and text were sharp enough, but a lack of contrast doesn't help readability. The tube is less curved than the Nokia's, but more so than the Sonys'.

The Optiquest is average in every respect except for price. There, it excels.

Philips Magnavox 109S

The Philips looks like it was made for cubicles, but it's a decent performer. It won't challenge the top dogs here, but the price is considerably lower.

The 109S offers a very bright screen (perhaps too bright, but at least you won't have to worry about fading). It's a little dull in the color department, but good for text. It offers a moiré control, but it didn't have much of a problem in that department.

The monitor has a Nokia-like finger wheel on the underside of the bezel, but it's chintzier and much harder to use. If you spin the knob too slowly, it won't do anything; too fast and you won't get the selection to stop in the right place in the onscreen window. It took 20 turns of the wheel to go from one extreme to the other in the moiré control.

Princeton Graphics AGX 900

The AGX 900 is one of Princeton's more expensive displays, mainly because it uses a Trinitron tube. The combo works: The tube is nice and flat, and the image is stellar. The brightness and contrast aren't as good as with the Sonys, but text looks just as sharp. Colors are vibrant, but they don't pop as much as on the Sonys. But then, it's \$100 less.

The onscreen controls look like they were borrowed from Nokia, but you don't

get a little navigation wheel; instead, you get icky rubber buttons. Navigation is easy enough, but Princeton should have acquired that little wheel, too.

The too-white plastic and the rubber buttons make the monitor look like it belongs in a hospital, but the great image quality may make up for the exterior.

Princeton Ultra 90

The lower-priced of the two Princetons we tested, the Ultra 90 uses a shadow-mask tube.

Unfortunately, it's not very bright, so colors are dull and muddy. I couldn't get rid of a minor moiré pattern — it has a control for it that didn't work very well. But that's not much of a ding — most of the moiré controls for these monitors didn't work that well.

Its onscreen controls look the same as the ones on the Viewsonic; they operate the same way, though the buttons are slightly different. They work fine for Viewsonic, and they work fine for Princeton.



Sony MultiScan CPD-420GS



Viewsonic PS790

tubes, so of course they use them in their monitors. They're super-flat (but not ruler-flat, as are the Mitsubishi tubes). Both of the Sony monitors we tested will knock your socks off.

The CPD-420GS is a newer model than the GDM-400PS, but it's very hard to tell a difference in image quality. Both are equally bright and far brighter than any of the other monitors, but not so much that your eyeballs become seared.

Images and text explode off the screen; they are very sharp, and contrast is the best in this group by a wide margin. Pictures are vibrant and very warm. If you need a monitor that's viewable in direct

sunlight, either one will do the job.

The GS has fewer controls, but they're laid out a little better: The small buttons are placed in a baseball-diamond pattern, which makes for easier navigation, while the 400PS's controls are laid out in a straight line across the bottom bezel. The 400PS offers moiré control (though no moiré was apparent in either monitor) and the ability to adjust the color in the corners, rather than just screenwide.

For most people, the very minor differences in the 400PS aren't worth paying for. You'll get a heck of a monitor with the 420GS; the premium you pay for it is definitely worth it.

Viewsonic PS790

The Viewsonic is a fine monitor, but it gets lost in the stampede of the super-flat screens, and it's priced a bit too high. The screen would have been considered very flat last year, but this year it's merely adequate. It's no beach ball, though.

The PS790 glows bright as the sun — OK, not that bright, but it's pretty darn bright. Contrast is excellent, and colors are vibrant. Text is sharp, but not as sharp as with the Sony or Mitsubishi tubes.

The controls aren't bad. They aren't confusing, but they still require too much button pushing and back and forth action, like most of the monitors here.

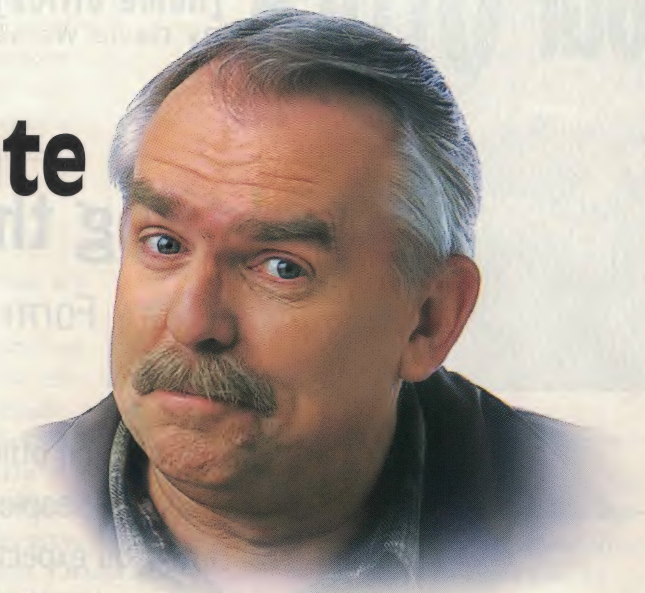
Flat Is Where It's At

While all of these are a step up from smaller monitors, especially ones that are more than two years old, the models sporting Mitsubishi or Sony tubes are huge leaps forward in monitor technology. The Mitsubishi and LaCie are now the standards for CRT screen flatness. The Sonys aren't far behind in the flatness department, and they're the brightest of the bunch. Of these four, the LaCie, with its funky blue cabinet and included hood, is the best, in our opinion.

The Princeton Graphics AGX 900 is an excellent deal. It has a Trinitron tube, it's very flat, and it's only \$599. Aesthetically, though, it leaves a bit to be desired. For an even better implementation of the tube and a cooler looking cabinet, step up to the Sony CPD-420GS.

Or wait until next year, when everyone will have gone flat. **III**

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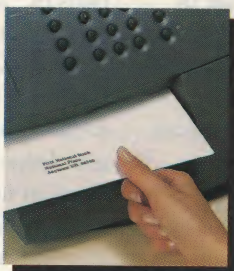


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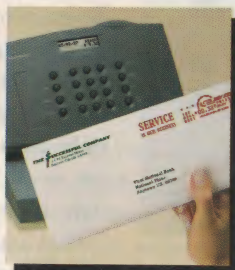
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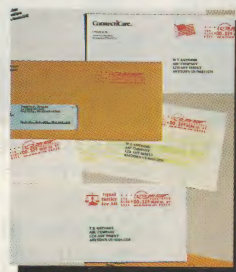
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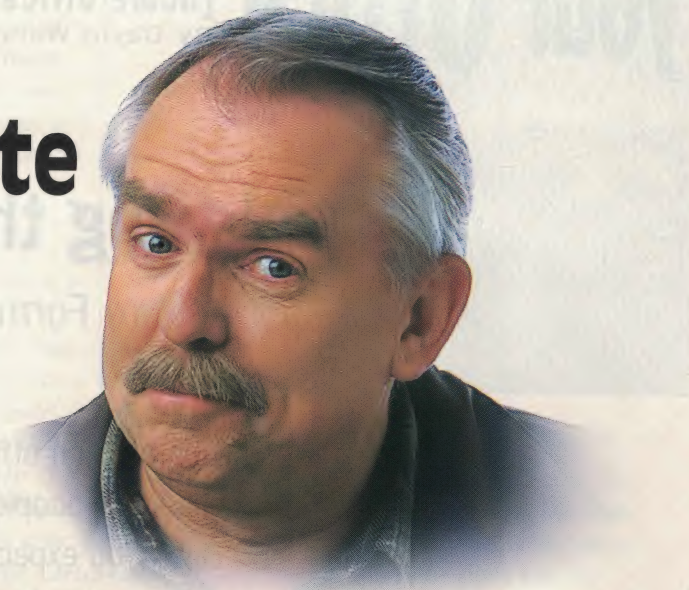
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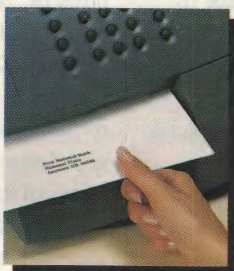


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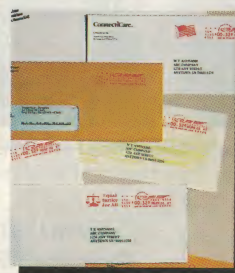
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Designing the Dream Office

A Place Where Form and Function Meet

What is a home office? Is it little more than a room with a desk? For a lot of people, a home office doesn't need to be much more than that. But if you expect your business to grow, and you want to keep it in the home, at some point you're going to want to take your home office to the next level.

Whether or not you're ready to start knocking down walls, it's good to start thinking about that dream office so that you'll be ready when the time comes.

The Home Office Crystal Ball

The first step is imagining what that next level will look like, and that means not only assessing your current needs, but anticipating what your future needs are likely to be. For a home office can be a major (albeit tax-deductible) investment.



Toni Gatone's Home Office — before.

Fortunately, due to the rise in the number of people working out of their homes, designers now specialize in home offices, and such professionals can help get you started by encouraging you to ask yourself the right questions.

Phyl Smith, principal of Working Spaces in San Francisco,

California (415-421-6139), and author of *Creating Workplaces Where People Can Think* (Jossey-Bass), says that in her initial consultations with her clients, she "encourages their discoveries about what will work and what won't work," by asking them to reflect on the most basic principles of their work life. She first gets a sense of what the client wants to accomplish. Proficiency in a certain

area? A certain kind of creativity? Then she'll look into what they'll need in order to reach those goals: How much surface area will they need? What kinds of equipment, and what kinds of light? Then she'll get an idea about what could prevent them from reaching their goals. Is there noise in the environment? Other distractions? Then with the client's help, she'll go about designing an office that meets their needs while minimizing negative conditions. "If we provide what supports us," says Smith, "and take away what gets in our way, our productivity ought to be just great."

Mireya Cretarolo of The Studio in Burlingame, California (650-348-7078), encourages her clients to think things through before she begins to suggest design strategies or recommending specific pieces of furniture. "A lot of our clients have an idea of what they want, but their ideas blossom as they sit here and talk to us, because there are hundreds and hundreds of different options for setting up your home office."

Mark Dutka of InHouse in San Francisco (415-554-1950) begins his consultations with a printed questionnaire that gets his customers thinking. He says that everything on the questionnaire has an impact on how they design the office. InHouse will fax you the questionnaire upon request. Such consultations are invaluable, because often people have ideas for home offices that just don't work. Dutka warns, for example, that many people think that corner desks are the optimal solution for conserving space, but they don't realize that in order

to accommodate the keyboard, your chair is going to have to come out pretty far from the corner, and in a lot of situations, an L-shaped desk is more practical.

After an initial interview, each of these designers will visit your home to assess the territory first hand. Also, as interior designers, they each offer customized solutions, so that if you can't find what you want in terms of furniture or shelving, they'll design it for you.

Magic Makeover

Toni Gatone, one of Dutka's clients, is an independent manufacturer's representative for home and garden accessories. She had a second bedroom doubling as a home office, which housed her Performa, printer, scanner, two fax modems, a fax machine, a copy machine, and a postage meter. She shared the office with an assistant, and they also needed to add a third workstation during the busy season. It was a small space, and although she didn't know exactly how, she knew there must be a way to get better use out of the space. "Some pieces of furniture were deeper, shallower, higher, and lower than others," says Gatone. "I didn't have adequate storage, and I was constantly bumping into furniture when I was moving around; it just didn't work very well." They ended up taking out all of the existing furniture and building in a completely new space. Gatone says the redesign has increased her productivity.

Smarter Than Your Average Desk

One of the basic tools of the trade that you might want to re-think is the desk. "The traditional desk," says Dutka, "hasn't really been able to accommodate a computer. It's just not flexible enough." Ideally, you want a desk that has a tiltable keyboard tray and can also accommodate peripherals, supplies, and wires. Such desks have special holes and channels for the wires to pass through and are therefore said to be capable of "wire-management." "So these days," says Dutka, "we think in terms of 'desk systems' — one word — which can be defined differently depending on what the customer needs. A desk system can include shelving and additional tables." Cretarolo agrees that the concept

of the desk is changing. At The Studio, one of the most popular items is the armoire, which is a self-enclosed unit that includes a desk, computer table, disk compartments, and file drawers.

Please Be Seated

A good, comfortable chair is a wise investment, and it is probably your most important one, according to Dutka. For comfort, you want as much adjustability as possible. "All of our chairs are not only height adjustable," says Dutka, "but they tilt, they have adjustable arms, and they have locking mechanisms. Cretarolo also carries a wide variety of chairs, designed for a wide variety of different purposes. "We have a chair specifically for people who move around a lot within the chair."

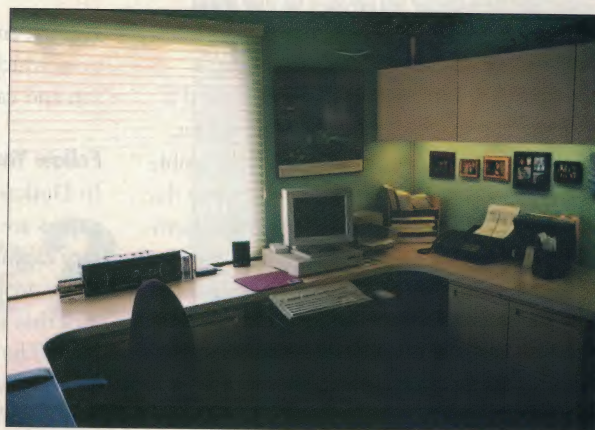
Hey, You've Got to Hide Your Stuff Away

Getting rid of clutter is uppermost in most people's minds, and Cretarolo says there are hundreds of kinds of file cabinets to help you in this pursuit, including legal- and letter-sized file cabinets, lateral files, forward-facing files, and cabinets that also accommodate printers or fax machines. Using an armoire can also help to reduce clutter. "They all have surge protectors," she says, "and they're all set up for wire management, so that only one wire goes out from the armoire and into the wall."

One client who worked with Smith had an office in a guest bedroom and used the bed to organize all her papers. But whenever guests came over, she'd have to pick it all up. So Smith designed a work surface along the length of one wall, with shelves going up to the ceiling and file drawers and other types of equipment below. Now, says Smith, "She has room for clients to come over, and she's not ashamed of the way the place looks."

A Room with Two Views?

Like Smith's client, many people are interested in having a home office serve an additional function. Also, Cretarolo says that many of her clients are interest-



Toni Gatone's Home Office — after.

ed in systems for keeping work files separate from home files in their home office. But keep in mind that if you plan on taking a home office deduction on your income tax, among other requirements, the law states you have to use the office solely for business purposes. This influenced Gatone's decision to create a single-purpose home office. "After the redesign, I didn't want to have the room double as a second bedroom. I wanted to follow the law to the letter," she said. Also, she considered buying furniture that she could take with her if she decided to move, but for a number of reasons decided to have custom-made built-in furniture. She decided that because she lives in Marin County, California, the market value of her home would be much higher with a built-in home office, since it's a home-office community.

The Flexible Office

If you're a renter, however, or you're sure you want to purchase office furniture that you can move with, instead of thinking in terms of permanent fixtures, you might want to think in terms of flexibility and modularity. "We once designed an entire wall unit that looked built-in but was not," says Dutka. "We even finished, polished, and varnished parts of the sides of the units that butted up against each other, knowing that some day they'd want to separate these units." Nine months later the clients moved, and sure enough, they separated the units for use in the new space.

By the same token, Dutka advises that it's best to purchase furniture that's flexi-

[home office]

ble and not built for specific peripherals. So if you purchase a shelving unit, it should be thoroughly adjustable, and if you want to put a printer in a cabinet, the cabinet should be as large as possible in case you get a bigger printer some day. Cretarolo says that The Studio has furniture on rollers, so you can move the pieces around, depending on your needs at the time.

You're Coming over When?

You might also want to consider how to accommodate visitors. You might not have any fancy clients stopping now, but soon, if your business grows, you will.

A "return" is a table that angles off of the end of your desk, so that you can sit on one side and a customer or client can sit on the other. This is ideal for accountants and others that have the need for an interview setup. If you're a graphic designer, you might want to have a couch with a coffee table at which you can review samples in a comfortable setting. Gatone wanted to accommodate

visitors, and so she has a third workstation, which is used during the busy season and can also serve as a meeting table.

Follow Your Dream

In Dutka's ideal home office, all of his papers are hidden inside rich, contemporary cabinetry. It accommodates two other people with a mobile conference area that also serves as a side table for his desk. The space is illuminated by subtle ambient lamps. Meanwhile, in Cretarolo's ideal home office, she sits in the center of an enormous round desk, with work space completely surrounding her. Along the walls are cherry file cabinets. There's a built-in entertainment center, to unwind from all that productivity, as well as a waterfall. What does your ideal home office look like?

Ultimately, your home office is an expression of your self in a way that a corporate office can never be. Says Smith, "We have to walk into that office every day, and what we see sends us a message about ourselves." ■

Watch Your Back!

When it comes to chairs, there's some controversy over what is and is not "ergonomic."

Whereas most chair designers sing the praises of lumbar support — a slight curve to fill out the lower back — physical therapist Dennis Zacharow thinks otherwise. "Lumbar support," says Zacharow, "distorts the proper upright relationship of the rib cage and pelvis, with the upper trunk being displaced behind the hips." Pictured above is his Zackback Computer Posture Chair, which costs \$995.



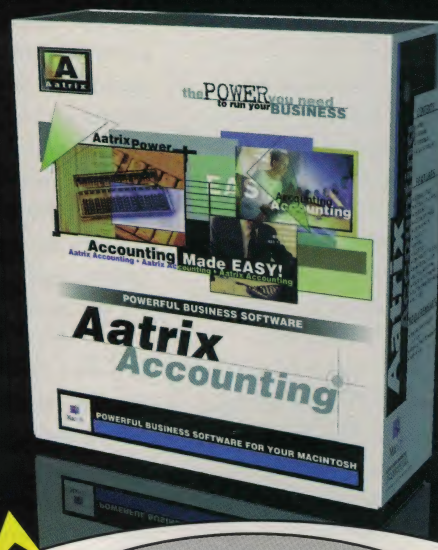
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Don't Dream It, Draw It!

Adobe Illustrator 8 vs. CorelDRAW 8

The battle of vector illustration programs has long raged between Adobe Illustrator and Macromedia Freehand. Corel, for the most part, remained a player only in the Windows market.

The company had previously tried to enter the Macintosh graphics market with CorelDRAW 6, a half-hearted attempt that was received poorly by critics and consumers.

When Freehand 8 debuted last year, it leapfrogged over Illustrator 7 in several significant features, leaving Adobe in the unenviable position of playing catch-up. Although Adobe picks up much of the slack with the recently unveiled Illustrator 8, its impact has been offset by the surprisingly strong showing of CorelDRAW 8.

Illustrious Curves

Adobe's Illustrator 8 is a logical next step for the industry-standard illustration program. While

certainly not a revolutionary upgrade, Illustrator 8 offers a spate of new features and interface refinements that, for the most part, bring the product on par with Macromedia's Freehand 8.

Illustrator 8's fantastic new Gradient Mesh tool allows objects to contain complex, multi-color

gradients (subtle blends from one color to the next). The user can choose the Gradient Mesh tool and click on different parts of a selected object to overlay a simple mesh. Each point you click on functions as an anchor point, from which a gradient will extend. Handles associated

with each anchor point allow you to modify the shape and size of the gradient. The results are highly structured blends that allow you to mimic natural media more closely than any other modern vector-based illustration program.

Illustrator 8 introduces a series of brushes that allow designers to apply artwork along a path. The Art Brush, for example, binds any piece of art to a path, curving it at the designer's will. The Pattern Brush repeats pre-selected artwork along a path, creating twisting vines or wandering train tracks. The Scatter Brush is perhaps the most ingenious of the three, varying the size, rotation, and spacing of a piece of art, allowing illustrators to create such things as a meandering family of ants marching across a page.

The new Pencil tool makes it very easy to create simple freehand drawings with Illustrator 8. You can reshape any path simply by drawing near it — instead of creating a new line, you'll simply modify a section of the existing line. The Pencil tool is complemented by Smooth and Erase tools that refine or eliminate parts of existing paths.

One of Illustrator 8's most novel features is the Photo Crosshatch filter. This unique filter converts any bitmap image to crosshatched line art, giving a rustic, hand-drawn feel to illustrations.

Illustrator 8 now exports files to Adobe Photoshop, preserving all of the layers (Photoshop 5 only). This gives graphic designers more control over images that are converted to bitmap format. A clear advantage lies in the ability to apply Photoshop filters to individual layers of an image, rather than to the entire graphic.

Unfortunately, Illustrator 8 lacks the capacity to create transparent objects, making it the only



Illustrator 8 with its familiar palettes.

professional illustration package to omit the feature. Illustrator 8 also remains the only illustration program to restrict documents to a single page. Designers looking to create multi-page documents or wishing to employ complex transparent effects should look to Freehand 8 or CorelDRAW 8.

Draw, Pardner!

To say CorelDRAW 8 marks a vast improvement over its predecessor would be an understatement. Immediately apparent is the unmistakable Macintosh look and feel — a stark contrast from the Windows influence befouling CorelDRAW 6. The new interface is highly customizable: Palettes can either float free or be anchored to the side. To help ease the transition from other illustration programs, CorelDRAW 8 can even be configured to mimic the interface layout of Adobe Illustrator or Macromedia Freehand.

One of the most ingenious interface additions is the Property Bar. When a tool is selected, its options automatically appear in the Property Bar. This allows users to effect changes without having to resort to a pop-up dialog box that obscures the image they are working on.

CorelDRAW 8 introduces several smart Interactive Distortion tools. The Push tool makes objects collapse in on themselves, while the Pull tool causes objects to burst at the seams. The Zipper tool intelligently allows a designer to add irregularity to the edges of objects, varying in frequency, amplitude, and angle. Finally, the Twister tool allows a designer to twist an object around any specified center point.

When it comes to transparency effects, CorelDRAW 8 outclasses even Freehand 8. Transparency can be applied to any object — and can even be applied as a gradient. A drop of water, for instance, can feature an object that becomes increasingly opaque from top to bottom. CorelDRAW 8 can even apply a gradient over a bitmapped image.

Capping off these remarkable features is the ability to modify or distort

objects containing transparencies or gradients — and amazingly, the transparencies and gradients remain editable even after the object has been modified.

The only thing I missed in CorelDRAW 8 was a tool similar to Illustrator's Gradient Mesh tool. Also, Illustrator 8 anti-aliases your illustration onscreen, filling in the curves with extra gray pixels to make them look smoother, similar to how they will look when printed — CorelDRAW can't do that. But these are minor omissions that don't prevent CorelDRAW from being an all-around excellent vector drawing tool.

The CorelDRAW 8 package also includes PHOTO-PAINT 8, a bitmap image editor similar to Adobe Photoshop. Although Corel markets PHOTO-PAINT as a companion of sorts to Photoshop, it's actually a very capable image editor in its own right. PHOTO-PAINT mimics the interface of Photoshop, making it feel instantly familiar to Photoshop users. It also handily opens all Photoshop documents, including layered image files. Like Illustrator 8, CorelDRAW 8 can export layered illustrations to Adobe Photoshop, and fittingly, PHOTO-PAINT can open layered illustrations from either application.

PHOTO-PAINT 8 offers a few features not found in Photoshop, too, such as Orbits. A brush can be created and programmed to rotate around the cursor as it is dragged, varying in size, distance from the center, and the number of orbiting points. The results are some outstanding eye-catching images, such as twined rope, twisted wire, and even strands of DNA.

Another feature not found in Photoshop is the Image Sprayer, similar to the graphics hose tool found in MetaCreation's Painter 5. The Image Sprayer scatters an image (or series of images) around the cursor, varying in size and rotation. A shadow is added to each sprayed image to give the impression of depth.

PHOTO-PAINT 8 steals home base, however, by offering users the very unique ability to open and edit QuickTime VR movies.



CorelDRAW 8 with transparency options.

CorelDRAW 8 would be a fantastic package if it simply included CorelDRAW and PHOTO-PAINT. The icing on the cake, however, is the included extras: CorelTRACE 8 (a bitmap-to-line-art converter); Font Reserve 1.02 (a font-management utility); 1,600 TrueType fonts; and 1,200 pieces of clip art, digital photos, animated gifs, tiling textures, and a spate of third-party image-manipulating plug-ins and filters.

The Final Decision Adobe Illustrator has long been an industry standard, but for the first time, both it and Macromedia Freehand have CorelDRAW nipping at their heels. Smart money is on CorelDRAW 8. It's an amazing package for the price — and it outclasses Illustrator 8 on several fronts. If you're looking for an easy-to-use illustration package at a great price, pick up CorelDRAW 8. Chances are you won't be disappointed. **MII**

rating ★★★★★

Adobe Illustrator 8
\$375, Adobe Systems
www.adobe.com
PowerPC Required

Excellent new tools: Gradient Mesh, Scatter Brush, Pencil; ability to export layers to Photoshop

No transparency features, documents limited to one page

rating ★★★★★

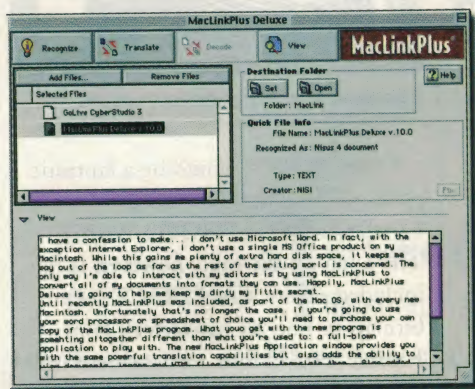
CorelDRAW 8
\$450, Corel
www.corel.com
PowerPC Required

Excellent transparency and distortion tools; complete package including image editor, cast font, and clip art libraries

Doesn't smooth out onscreen preview

MacLinkPlus Deluxe

I have a confession. I don't use Microsoft Word. In fact, with the exception of Internet Explorer, I don't use a single MS Office product on my Macintosh. The only way I'm able to



interact with my editors is by using MacLinkPlus to convert all of my documents into formats they can use. Happily, MacLinkPlus Deluxe is going to help me keep my dirty little secret for some time to come.

Until recently, MacLinkPlus was included, as part of the Mac OS, with every new Macintosh. Unfortunately that's no longer the case. If you're going to use your word processor or spreadsheet of choice, you'll need to purchase your own copy of the MacLinkPlus program.

What you do get with the new program is something altogether different than what you're used to: a full-blown application. The new MacLinkPlus Deluxe contains the same powerful translation capabilities as before but adds the ability to view documents, images, and HTML files before you translate them. Also added is new Contextual Menu support and the capacity to expand virtually every compression format from Compact Pro to .zip files. Every translation is handled with the transparency and the ease you've come to expect from MacLinkPlus.

There are only two really minor downsides to the new MacLink program. First, for some inexplicable reason, the program provides no translators for the current

versions of Claris/Apple Works or FileMaker Pro. Considering that every new iMac ships with both of these programs, this seems to be a tremendous oversight. Second, while I found MacLink's translation process to be superb as usual, viewing the contents of archived files was often slow.

The Final Decision MacLinkPlus Deluxe continues the tradition of being a top-notch file-translation program. Whether you're a Mac user in a Windows world or you just don't want to make the move to Microsoft Office, MacLinkPlus Deluxe will keep you sharing and translating documents with no trouble at all.

—Jeff Battersby

rating



\$99, DataViz
800-733-0030
www.dataviz.com



Excellent file-translation capabilities



Lacks support for some common formats, a bit slow for some tasks

RDC-4300 Digital Camera

Ricoh's RDC-4300 is a well-constructed digital camera that offers good value for the money, but unfortunately, it's a bit clunky to use.

The 4300 uses a rotating, auto-focusing, 3X zoom lens (equivalent to a 35mm to 105mm in film camera terms) and a 1.3 million-pixel CCD to capture images with an impressive resolution of 1280 x 960. The zoom's motor is slow and really saps the battery life, but the camera does come with rechargeable NiMH batteries and a charger. The autofocus doesn't work in low-light settings, however, because it doesn't use infrared.

The camera doesn't have an optical viewfinder; you compose shots with a two-inch LCD screen. But even though



you can adjust its brightness, the screen totally washes out in sunlight and barely shows anything in dark settings. Also, adjusting the settings via the LCD is a pain: You have to use several buttons just to navigate and make a setting, and some labels are cryptic.

Image quality is quite good, however. Pictures are very sharp, and their contrast is excellent. You can also improve quality by saving images in an uncompressed TIFF format. Colors come out very saturated, but that's typically easier to fix in software than in the controls of the camera.

Because the zoom lens is motorized, you can shoot far-away subjects and still get a full 1280 x 960 image ("digital" zoom cameras merely capture a portion of the image and magnify it just as you would in software). A macro setting works well for close-up work.

The camera packs some nice features into its solid little body — sound cap-

turing; audio/video out to a television; time-lapse photos; and special capture modes, such as sepia. You can even use an optional remote control.

Another Ricoh model, the RDC-4200, is very similar. For \$100 less, you won't get sound recording, the batteries and charger, or some of the software bundle, but you'll get a 2X digital zoom in addition to the 3X motor zoom. It uses a 1.8-inch LCD that's the same quality as the 4300's.

The Final Decision The RDC-4300's case is as solid as a rock, and it can take great pictures. It's just difficult to compose those pictures and set the controls, and that's half the battle in getting those great pics.

—Alan Stafford

rating



\$599, Ricoh
702-352-1600
www.ricohcpg.com

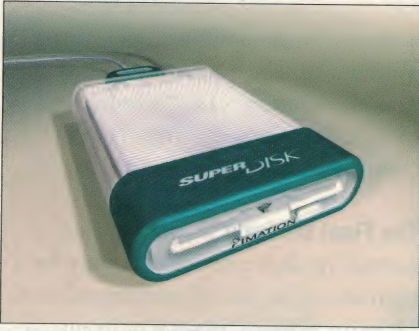


Solid construction, great pics



Clunky controls, poor LCD

SuperDisk USB Drive



I can't imagine a better friend for the floppiless iMac than Imaton's SuperDisk drive. It can read 120MB SuperDisks as well as regular old floppies. This is handy if you want to transfer all your floppies onto one SuperDisk, thus saving a lot of space. It's a little loud when it's reading, as most removable drives are, but when it's not reading, it's utterly silent, unlike other drives.

Imation did a great job in making the SuperDisk drive match the iMac. They got it all down, from the color of the

plastic, to the texture, to the shiny spiraling cord, to the little green read light that flashes from within the drive. Even the cable connector is well-designed, with a molded-plastic squeeze catch and a foot that allows the connector to rest squarely on the table.

So, how does the lil' drive perform? Well, it's not as quick as SCSI. And copying files from the hard disk to a SuperDisk, I got an average speed of 8MB per minute, which is far from maxing out the speed limit for USB. In terms of floppy-disk speed, I got some curious results. Compared to a much faster machine — a 333Mhz G3 tower — copying a set of files from the floppy disk to the hard drive was actually a bit faster on the iMac with the SuperDrive. Go figure. However, going the other direction — from the hard disk to the floppy — took a full minute using the SuperDisk drive compared to the tower's 30 seconds. And floppies, when filled with data, took about three times as long to appear on the iMac's desktop as they did on the tower's.

In terms of working with floppies, the only task the SuperDisk drive couldn't handle was reading the old 800k double-density disks. Imation says that some multiple-floppy installers don't work with the drive, but I had no problems installing software. If you do have trouble with multiple-floppy installs, you can copy the floppies to your hard disk before installing.

The Final Decision The SuperDisk is a natural for the iMac. It will give you high-capacity storage, and if you have a bunch of floppies lying around, which most of us do whether we like it or not, you won't be left out in the cold.

— David Weiss

rating



\$149, Imation
888-466-3456
www.imation.com
USB Required



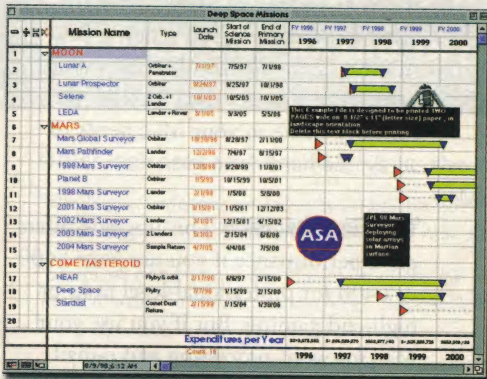
Reads both high-capacity SuperDisks and floppies



A bit slow, won't read old 800K double-density floppies



FastTrack Schedule 5.0.2



than 600 pages, FastTrack Schedule is reasonably easy to use and learn. An

online tutorial takes you through the basic steps of entering the activities of your project in the program's spreadsheet-like window. From there you just put in your estimated start and finish dates for each function. Then you can add daily costs, to see where the money is going. If the project is running late, you can easily revise the schedule.

Using the program's Links tool, you can set up "activity relationships," so that the end of one task in a project triggers the start of the next. So when a new home's foundation is ready, you'll know when to bring in the crew for the rest of the work. You can view your completed schedule on the screen, print it out, or publish it on the Web. A multi-user version of FastTrack Schedule lets your workgroup share a project over a network.

Unlike many new programs, AEC

Software is considerate of owners of older Macs. Any Mac with 5MB of free RAM, 10MB of hard-drive space, and System 7.0 or later can run it. Unfortunately, it doesn't support QuickTime, so you can't turn your schedules into multimedia presentations; nor does it support AppleScript, so you can't easily automate repetitive tasks.

The Final Decision It's nice to know that you can use the very same software that the big companies use to manage your own projects. Once you learn FastTrack Schedule, you'll find it difficult to live without. Check out the free demo at the publisher's Website, and you'll see what I mean.

— Gene Steinberg

rating



\$200, AEC Software
703-450-1980
www.aecsoft.com



Fast, flexible, and powerful, even on older Macs; easy to learn

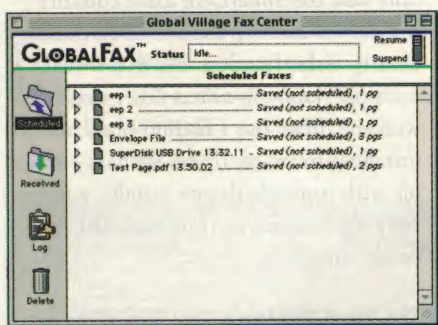


Doesn't support QuickTime or AppleScript

What do Apple, IBM and Motorola have in common besides those PowerPC chips? Well, they all use the very same software to keep tabs on their projects. And it's the same program you can buy yourself for less than two hundred bucks. With AEC Software's FastTrack Schedule, you can schedule such simple projects as remodeling your garage with the same finesse as NASA when it tracks a space flight.

Despite a daunting manual of more

GlobalFax 1.04



All modems come with fax software to get you started, and for most people, this is enough. But if you want more advanced features, you might want to take a look at GlobalFax from Boca Research. It works with internal modems that come with the iMac; G3 PowerBooks, towers, and desktops; and all Global Village internal 56K Modems.

GlobalFax sets you up by asking a series of questions about your location and dialing preferences. It polled my modem to figure out I was using an iMac — I didn't have to mess with any

modem scripts. When you send faxes, you get a progress bar at the top of your screen, which is handy if you're working while receiving a fax in the background — it won't clutter your screen with extra windows.

GlobalFax gives you the ability to broadcast faxes to multiple recipients and set up multiple address books, which are some of the hallmarks of FAXstf Professional edition, a more expensive program. GlobalFax also has an incredibly useful feature called "envelopes": you can fax someone a cover letter you composed in Microsoft Word, followed by a résumé you created in Quark, and a graphic design sample you created in Photoshop, and they'll all arrive together in the same fax. You can send high-resolution grayscale faxes, but at the best setting, this takes about five minutes per page using the iMac's 56K modem.

Some aspects of the interface are a bit confusing. When you send your first fax, you get an address book with the cursor blinking in the field marked "Find," and

you don't see anything about sending. Also, in the fax browser, it puts sent faxes together with scheduled faxes, causing further confusion. And when you want to send a scheduled fax, the command button reads "Schedule" while it should more correctly read "Send," because that's what it does.

The Final Decision If you've got an internal modem and you're hungry for a bit more in the way of professional-quality faxing features, in spite of its one or two clunky aspects, GlobalFax is a very good deal. It's not quite as robust as the professional version of FAXstf, but at half the price, it might be just the ticket.

— David Weiss

rating



\$40, Boca Research
561-997-6227
www.bocaresearch.com

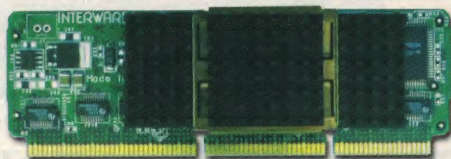
✓ Broadcast faxing, multiple address books, "envelope" feature, inexpensive

✗ Interface confusing in places

VPower PF 54xx/64xx G3/240 Upgrade Card

Owners of Performa 6400s and Power Macintosh 5400s won't be left out of the G3-upgrade feeding frenzy. Vimage Corporation saw to that with its VPower PF 54xx/64xx G3/240, offering G3 processing for these aging Macs, as well as Umax Apus 2000, 3000, and SuperMac C500 machines.

How? Vimage uses cool engineering tricks they "can't really discuss" to allow you to install the G3 processor in the Mac's cache memory socket. The card, smaller than most G3 upgrades, still includes a 240-MHz G3 processor and 512KB backside cache, giving you a performance increase of 200 percent (and higher) on processor-intensive tasks. This is very noticeable when using applica-



tions such as Adobe Photoshop and After Effects and when playing 3D games.

Installation is easy: First load up the software, then shut down your Mac to install the card. Read the instruction manual carefully — my version told me to remove the Mac's "cover" when, in fact, you need to slide the logic board out of the back. Remove the cache RAM

card (if one is installed) and replace it with the G3 upgrade. Slide the logic board back in, start up, and you'll see how much faster things are. (Clone users will follow slightly different instructions.)

I found no problems with the upgrade using system 8.1 and 8.5. At the time of writing, Vimage was still testing for 8.5 compatibility but reports no problems.

But even with the Vimage upgrade, my machine is still a Performa in G3's clothing. That is, it still has a slow, 40-MHz system bus, anemic video power,

and an old, slow IDE hard drive.

Although it's certainly quicker surfing the Web and doing word processing, it doesn't compare to, say, a new iMac. Adding 32 to 64 MB of RAM would help, since you can then increase the memory cache so your Mac needs to access the hard drive less.

The Final Decision This upgrade offers good performance if you use your 5400 or 6400 for professional-level tasks or high-end gaming. But if you use your Mac for word processing and e-mail, you may be a little disappointed after spending over \$500. Instead, RAM, a faster modem, and a video card may offer you a better deal for your dollars.

— Todd Stauffer

rating



\$549, Vimage Corporation
877-484-6243
www.vimagestore.com

✓ Easy installation, speedy for high-end tasks, only G3 upgrade available for 5400/6400

✗ Price a little high for the performance boost

Apple chose EarthLink for the iMac,
why not choose EarthLink for your Mac

See
Enclosed
Software



THE "i" IN iMAC™ STANDS FOR INTERNET. SO IT'S NO WONDER THE iMAC
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"The largest independent Internet service provider is also one that caters well to its loyal Macintosh subscribers." — Mac Central, April 17, 1998

"EarthLink has become the Macintosh of the ISP world — the way for 'mere mortals' to connect to the Net." Business Week, December 15, 1997

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Do You Do Windows?

Virtual PC vs. SoftWindows 98 **By** Jeff Battersby

A little over a year ago, the only Windows-emulation product on the market was Insignia Solutions' SoftWindows. Now, with the advent of Connectix Virtual PC, there's a veritable battle going on for your emulation soul.

Both products run quickly, but keep in mind that you'll need to run them on high-end Macs. SoftWindows will run on nothing less than a 604e processor, and Virtual PC (VPC) requires a G3. They also require a lot of RAM —

SoftWindows, this utility can convert any existing SoftWindows disk images to a format that VPC can use. Status indicators at the bottom of VPC's screen provide a visual cue of floppy and hard disk access. VPC also makes it extraordinarily easy to eject disks and share Macintosh folders using buttons on the same status bar.

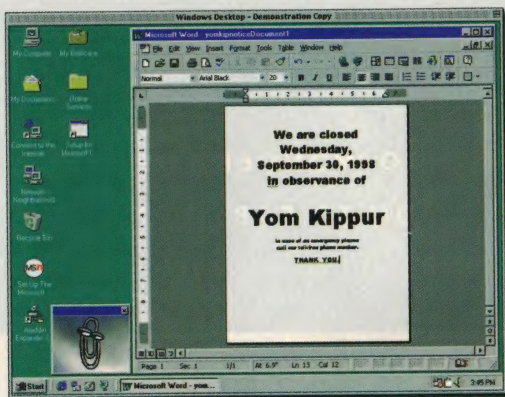
The SoftWindows installation is nearly as easy as VPC's, but it requires a bit more configuration to make the program run optimally. For example, at the outset I had to adjust the Preferred RAM allocation in the Get Info window before the program would run. Sharing files with your Mac also requires a little

open Mac application into an open Windows application — something you have always been able to do with VPC.

Both VPC and SoftWindows provide a fast start option. This saves your Windows environment — including open programs — and upon re-starting the program you're immediately brought back to where you left off. But VPC's was slower; it wasn't significantly faster than starting the program from scratch.

From a connectivity standpoint, both programs do fairly well, since they both support Ethernet. But if you're working in a TokenRing environment, you'll have to count VPC out.

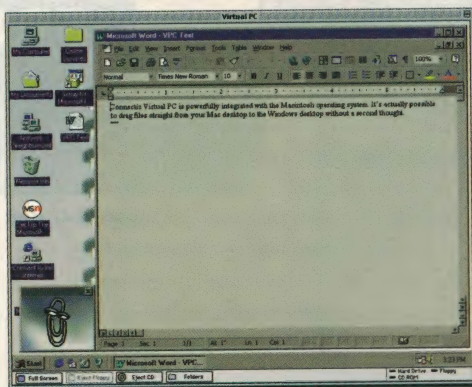
The Final Decision If you need access to a TokenRing network, your choice is easy. But for others, I was hard pressed to declare a winner. If you're using an iMac or any other G3, both of these programs allow you to exist, pain-free, in nearly any Intel-based environment. **MII**



Above, SoftWindows 98; Right, VirtualPC.

SoftWindows needs 32MB and VPC requires 48MB but suggests that you use 64MB. In either case, both programs run well with their recommended allotments. Word processing using MS Word 97 with both programs was snappy — just as if you were using its PC format.

Installing VPC is simple, and sharing files between your Mac and PC is as easy as dragging files from one desktop to the other. Want a larger Windows hard disk drive? VPC includes a utility that will instantly enlarge your Windows hard disk. If your previous Windows emulation software was



extra effort. Rather than having immediate drag-and-drop capability, you'll need to select a Mac Folder as a shared drive. Thankfully, with the new version you can drag selected text straight from an

rating

SoftWindows 98
\$169, Insignia Solutions
800-848-7677
www.insignia.com
PowerPC Required



Excellent Windows emulation, support for both Ethernet and TokenRing networks



Platform integration not fully realized, requires a bit more configuration

rating

Virtual PC
\$179, Connectix
800-950-5880
www.connectix.com
PowerPC Required



Excellent Windows emulation, excellent platform integration



No TokenRing support, QuickStart feature is not really quick

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Susan Ford
Publisher

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If you do not have Internet access, you may send a S.A.S.E. to MacHome, 703 Market St., Suite 535, San Francisco, CA 94103 for a ballot.

DeskJet 697C

Well, here they come: Printers for the iMac. And color inkjets are getting less expensive everyday. Hewlett Packard wouldn't want to miss out, and so it is now offering the DeskJet 697C.

It's a parallel-port (i.e., Windows) printer that requires the purchase of a special cable that allows it to speak USB with the iMac. It comes with one manual for the printer and one for the iMac cable, and at first I wasn't sure which one was going to get me started. The one for the printer was all about Windows. But thankfully, the one about the iMac cable was also all about the printer. By following this guide, I was able to get up and running fairly quickly.

The printer has a nice outward appearance. It's molded out of sturdy plastic with many curves and levers for adjusting the paper size and opening up the



lid, and it has a slot specifically for envelopes. It's very self contained. Unlike the Epsoms intended for the iMac, it doesn't have fragile telescoping parts for feeding and delivering the paper. It delivers the paper to the same place it draws from, sorting the pages by means of a clever leveraging system.

The 697C will produce some nice looking prints. It handled extremely light gradients and extremely dark gradients with only a minimum of banding, or unintended stripes. But compared to other printers of the same price, its output is markedly grainy. Even with HP's special Photo inks installed and at its highest settings, photographic images and gradients came out with very clear dots, consistently, across a wide variety of test patterns. Even the official 697C print sample

showed this propensity — it's distinctly grainier than Epson's Stylus Color 740, an iMac printer that is less expensive.

In terms of speed, it was a little slower than the 740. But in tests printing straight text from Microsoft Word, it was slow even using its "econofast" mode, which makes the text very light. In normal mode, it took about 3 minutes to print a page from Word, compared to 50 seconds on the 740.

The Final Decision Despite the sturdy workmanship of the HP 697C, in overall print quality and speed, two important factors, it doesn't hold its own compared to other printers in its class.

— David Weiss

rating

\$179, plus \$69 for iMac adapter kit; Hewlett Packard
800-752-0900
www.hp.com
USB Required



Sturdy design, flexible paper feeder



Poor image quality, slow, expensive with necessary adapter kit



PowerBook G3/300

Ah, this is more like it. Our main beef with Apple's now-discontinued low-end PowerBook was its poor passive-matrix screen, though we had other gripes. This high-end 'Book includes a 14.1-inch active-matrix display, and it's top-notch — sharp, bright, and big. It doesn't have a contrast adjustment, however.

Even cooler than the screen is the G3/300's DVD-ROM player. It comes with a PC card that works with the player to decode the audio and video, and the quality is fabulous. The video (depending on the source, of course) is gorgeous, and the sound will pin your ears back. This book has S-video out, so you can rent DVD movies at your local video store, play them on



the PowerBook, and watch them on your big-screen TV. Movies work fine on the TV, but games such as Riven don't work as well — you can't read fine text. Confine them to the LCD screen. Simulscanning — showing the same image simultaneously on an external monitor — is limited to just one resolution (1,024 by 768) despite the 'Book's 4MB of video RAM, and

it's at a very low 60Hz refresh rate.

You can display up to 1280 by 1024 on an external monitor, but this turns off the PowerBook's display.

When you want to get work done after seeing all those movies and playing all those games, you'll be well equipped. The 300MHz G3 uses a 1MB backside cache, and together they

make this book almost twice as fast as the G3/233 without a cache. With 64MB of standard RAM and a huge 8GB hard drive, this is the ultimate portable Photoshop machine. Even so equipped, it's price-competitive with high-end PC laptops, at last check.

This machine is 8MHz faster than the 292MHz version it replaces, resulting in an overall speed boost of about five percent. The speed of the built-in v.90 56K modem is similarly impressive: It's one of the fastest I've used, desktop or portable.

The Final Decision It's big, it's fast, and it's beautiful, inside and out. It's still very heavy, but in price-to-performance ratio, it can't be beat.

— Alan Stafford

rating

\$4,999, Apple Computer
800-538-9696
www.apple.com



Blistering speed, DVD, great screen



Poor simulscanning, heavy, no contrast adjustment

What I Really Want to Do Is Direct

Close-up on Avid Cinema **By** John Poultney

Avid Cinema was once marketed by Apple as a hardware/software combo for home video-capture and editing purposes. Now the package is being sold by Avid as a software-only solution for G3s, which are the only Macs with the power to do video capturing using only software.

Bear in mind, however, that your G3 system must have an Apple Audio/Video card (known as a "Wings" card), and these cards must be ordered with a new system — either the desktop, tower, or all-in-one models, but not the iMac (it doesn't have an internal slot for the card). Apple says it has no plans to offer this card as an after-market accessory.

With that out of the way, let me say that Cinema is an outstanding package for those seeking a straightforward, non-confusing way to make their own videos. There are video-editing packages out there with more features, but it's hard to beat Cinema for its simplicity. And it's mighty inexpensive. For less than \$150, Cinema allows you to use the G3's processor to achieve professional-quality frame rates. Using a 300MHz tower G3 with 64MB of RAM, I found the video quality to be excellent, even if the video files did take up a lot of disk space.

But the software's the thing. Cinema gives you an innovative interface based on a series of tabs, like you'd see on file folders. Each tab represents a process in the four basic steps: Planning and shooting a movie, bringing video into the computer, editing the movie, and publishing the movie. Click on each tab and you'll get a window with the tools you'll need. Cinema also includes tips and tutorials that list suggested shots and sequences for events such as birthday parties, soccer games, or vacations, as well as help for hooking up external video equipment and importing and exporting video.

Cinema's Edit module gives you a timeline on which to place audio and video clips, sequencing them as your artistic muse dictates. For switching between video clips, there's a library of common transitions, such as dissolves, page turns, and wipes, all of which work quite well. You apply these at an intersection between two clips, and the software gives you a small-screen preview of the result.

You can vary the length of the transition from one to six seconds, using handles on the ends of each clip. This took a little getting used to — It's quite a bit different than the approach used in Adobe's Premiere, which requires you to set in and out points for each clip in a separate window. But I found Avid's system to be much cleaner and simpler to use in the long run.

Cinema lets you add titles without a hitch, and they look good, too. You can even scroll 'em down or across the screen or change their colors. Cinema hasn't skimped on audio, either. You can record your own sounds through the system's audio in or with a microphone. Alternatively you can import CD audio tracks. As for getting video into the system, it works well just by hooking up a VCR or camcorder to the video input.

You can work on existing QuickTime video files, but they must first be converted to Cinema's format, which is rather a tedious process. It would be nice if you could just use them as is, but *que sera sera*.

At any point you can preview your movie in a small window. When you're satisfied you can save it as a QuickTime or Cinema file, or in "Presentation" format, sort of a slide show mode, for use



with programs such as Microsoft's PowerPoint or Adobe's Persuasion.

The Final Decision Like the Mac itself, Avid Cinema hides its complexities while giving you the ability to perform advanced tasks. If you have a G3 with the Apple A/V card, and what you really want to do is direct, Cinema is the one of the best purchases you can make. **AAA**

rating

Avid Cinema
\$139, Avid Technology Inc.
800-949-2843
www.avidcinema.com
G3 Required

 Simplified video capture and editing, good library of transitions, general-purpose storyboards and tutorials included

 Only works on G3 Macs with Apple A/V card, must convert QuickTime files before use

Going, Going, Gone!

Online Auctions Cover the Spectrum

Quick — what do 1924 silver dollars, Star Trek T-shirts, G3 Power Macs, bobbing-head dolls, 1960s Coca-Cola signs, and Donald Duck Pez dispensers have in common?

No, they're not all owned by Disney. Good guess, though. All of these items — the good, the bad, and the unclassifiable — are available for purchase through a single Website called eBay, one of the most active online auction sites.

While Internet auctions don't include the beloved rapid-fire patter of the auctioneers or let you relish the icy stares of the people you've outbid, they are the same in most other senses. They're actually more convenient than standard auctions,

because here you search for the *exact* item you want, make a bid, and then check back now and then to see how the bids are progressing. If the price is right, that beautifully restored mechanical bank can be yours. Better yet, you can take your time.

At a real auction, things move so fast that you've gotta be careful. "If you leave your hand up too long you could get stuck with a huge tab," said San Francisco-based writer Lynn Peril, who has purchased several items online during the past year. "Online, you can relax and think about whether you want to bid on something," she said.

Peril, long a collector of kitschy objects, said she found out about online auctions inadvertently. "I was doing a search for something that I was interested in and someone was advertising it on eBay," she said.

She looked longingly at the listings for about a month before taking the plunge, buying a self-help book from 1903. "It's called *Because I Love You*," she said. "It tells 'How to Woo and Win' and has a

chapter on using your handkerchief for flirting." Though seemingly inane, kitschy items have in

fact played a large part in developing the auction scene. eBay, by far the largest and most active auction site, got its start in 1995 when CEO Pierre Omidyar was talking with his fiancée about collecting vintage Pez dispensers. Omidyar, who'd worked on Internet projects at Magic Cap, hypothesized there must be a way to provide a direct conduit between buyers and sellers of unique items, and so eBay was born. eBay is now the standard by which other sites are judged, with more than one million users, and 290,000 auctions active in the "collectibles" category alone.

Auction sites typically give you a description, a current bid, and sometimes a photo of the object for sale, and most maintain categories like collectibles, computer equipment, sports memorabilia, toys, and antiques. Fancy an item? Simply place a bid above the current one — there are minimum increments that range from five cents to \$100, depending on an item's selling price — and watch the fun. The auctions are timed, normally lasting three, five, or seven days on eBay's site.

If you're an auction's high bidder, you and the seller are contacted by e-mail. Intriguingly, if you should place a bid of, say, five dollars above the current high bid, your publicized bid will only be raised by the minimum increment unless someone else outbids you. Say you *really* want that black velvet Kenny Rogers painting — the current bid is \$7, with a minimum bid increment of 50 cents. If you bid \$10, your bid will only appear as \$7.50 unless someone else outbids you. The system will automatically increase your bid until it reaches the maximum price you're willing to pay — \$10 in this case. After that, you'll need to up your limit.



The elusive bobbing-head doll is alive and well, and available on auction sites such as eBay.



F/A-18

KOREA

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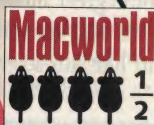
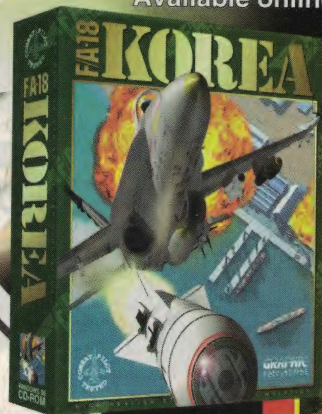
- * Proprietary ultra high-speed differential scan conversion graphics engine
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- * Powerful mission creator/editor
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- * Extensive theater of ops with rolling terrain
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*3Dfx texture mapping requires compatible 3D Hardware.

Private Reserve

Much of the bidding process is automated. On eBay, the seller often sets up a "reserve bid price," which is not disclosed to the buyers. This is the minimum a seller will accept for an object, but buyers won't necessarily know what it is — they're only told whether the reserve has been met or not. If it hasn't been, they'll either give up, bid more, or wait until someone else bids before continuing. If a reserve price is not met, the seller may decide to take an item out of auction. Auctions with no reserve price are usually noted; here the current prices really are the highest ones.

Make a bid that is less than the reserve and you'll usually get an e-mail within minutes saying you've been outbid. That's an automated response, but some bidders think there must be someone waiting by their computer just to outbid them. If the reserve is met, you'll get an "outbid" e-mail only if you're really outbid.

Participants are mixed in their enthusiasm about the reserve bid, as it can cause confusion. For example, eBay might list a computer that's worth \$650 with a starting bid of only \$1, while the actual reserve price remains unknown to buyers. Peril says she'd prefer that buyers start with a realistic price and work upwards from there, whereas fellow eBay user Russell Thomas thinks the small starting prices tend to start the bidding off with a bang. "It's a psychological thing that makes people think that it must be worth bidding on," he said. "If the bidding started close to the actual price it might scare a lot of people off."

At any rate, once you've decided to make a purchase, it's up to you and the seller to make arrangements to close the deal. This is where things get anxious — when buyers start wondering if

the seller will really ship that Lone Ranger scarf, and sellers wonder if the check really is in the mail.

eBay spokeswoman Kristin Seuell acknowledges these concerns but says fraudulent activity is very rare on the site. "We have mechanisms in place to safeguard trading," she said, citing a feedback system wherein potential buyers can see comments and ratings on sellers, posted by other buyers.

The Courthouse Steps

For some people, nothing will calm the jitters, and no amount of reassurance will persuade them to send money to someone they've never met, nor to send their credit card number to a Website. These folk may take solace to hear of some specialized services cropping up to act as secure financial intermediaries. Two such techno-fiduciaries, TradeSafe and i-Escrow, have established arrangements with the big general-purpose auctioneers, such as eBay, Auction Universe, and OnSale.com.

"A while back I wanted to make a purchase on an Internet newsgroup, and when it came time to do the deal, neither the seller nor I wanted to make a move," said i-Escrow's founder, Sherman Kwok. "Because we didn't know each other, there was no trust." Perceiving a need, Kwok started i-Escrow as a service to hold buyers' money until such time as merchandise is received in satisfactory condition.

"As it is right now, if you want to use escrow you need two separate transactions — one for the purchase and one for the escrow," Kwok explained. "Our goal is one-click shopping."

What's it cost to sell something on eBay? Much like the incremental bidding system, it depends on the item's opening and selling prices. The company charges a small fee for each item and a percentage of the final selling price, which is adjusted according to the actual closing price collected by the seller.

What Am I Bid For This?

With such mechanisms in place, the online auction world is poised to grow substantially in the next few years. Revenues in 1998 will likely top \$1 billion, i-Escrow says, with eBay accounting for more than 70% of that figure.

Shin-pei Tsay of Giga Information in Boston, says Internet auctions and related services are an evolutionary step in e-commerce. "Eventually the Internet will link buyers and sellers more directly, as services like escrow become the norm," she said.

It remains to be seen whether online auctions will really catch on in the mainstream economy. Still, says Johnny Bartlett, a graphic artist and musician in San Francisco, for niche markets that don't work well for the retail model, these sites are hard to beat: "I found some great sheet music, rare records, and Beatnik figurines online, for real cheap. There's just hardly anywhere else you can find stuff like this so easily." ■



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Online Auction Web Sites

www.ebay.com

www.auctionuniverse.com

www.onsale.com

www.recycler.com

www.tradesafe.com

www.iescrow.com

<http://auctions.yahoo.com/>

www.cityauction.com/

Would You Buy a Used Car from this Site?

America's love affair with the automobile has never been lost on

Bookmarks — a fact that is handily embodied in our extensive car collection.

Often wandering through our climate-controlled warehouse near Annapolis, fondly surveying half-restored '59 Morgans,

VW Things, and rare wine-colored DeLoreans, Bookmarks has always taken comfort, nay, *refuge*, in all things vehicular.

This is not to say, however, that Bookmarks wanders higgledy-piggledy from one dealer to another, snapping up cars in a belladonic haze. No, no. We do our homework, lest we end up paying an unfair remuneration for the vehicle of choice. And most people will tell you that one of the best tools for today's harried used-car buyer is, hands down, Kelley's Blue Book.

Having been forcibly ejected from Pep Boys, Grand Auto, and Kragen's more times than we care to remember for attempting to unwrap and take notes from one of these diminutive volumes, imagine our delight at discovering an online version of the Blue Book, wherein one may enter the car model, year, and optional equipment and instantly receive a price quote.

It's as simple as that, really. Although you shouldn't delude yourself into thinking that the Blue Book people would jeopardize their stranglehold on the used-car pricing market by posting the exact same content of their printed book on the Web. Rather, the online prices are meant as a general guideline for consumers, while the published booklets are aimed at dealers who are selling cars that have been "completely safety checked and warranted."

Kelley's Blue Book, www.kbb.com



I'd Like to Help You Son, But You're Too Young to Vote

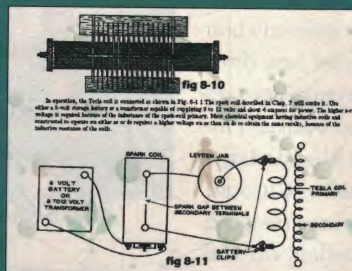
All this immersion into such weighty topics as commerce, transportation, and scientific research can transform any forward-thinking citizen into a potentially effective armchair activist. And that's just what E-The People is all about — the inexorable metamorphosis of the casual Web surfer into a wild-eyed fanatic, a champion of decency, a canvasser of neighborhoods in the fight for what's right.

E-The People (get it?) claims to be capable of forwarding your comments and petitions to more than 140,000 elected officials across this land. You simply visit the site, find a category that suits your current cause (such as senior services, taxes, or public safety), choose your recipients, write a letter, and before you can say "redlining," it's on its way. (They say they'll fax your letters to officials lacking e-mail.) Also present are petitions to sign or forward to your associates at the Friar's Club. Or take the grass-roots approach and write your own.

E-The People, www.ethepeople.com

Playing with Electricity

Sleek, shiny metal and molded plastics notwithstanding, Bookmarks has always been taken by the physics of the automobile, and indeed, the scientific underpinnings of many seemingly mundane objects. And though our



meager allowance has thus far kept us from outfitting the laboratory as originally envisioned, the Web has proven invaluable once again when it comes to scratching the scientific itch.

We're talking, of course, about the superb "Bizarre Stuff You Can Make in Your Kitchen" site, which (aside from the obligatory disclaimer) contains detailed plans for constructing such perennial scientific favorites as Tesla coils, soda-can steam engines, pinhole cameras, baking-soda-and-vinegar volcanoes, and a working replica of Edison's original phonograph.

Hobbyists, science teachers, and mad scientists alike will delight at this page, which also includes instructions for simpler experiments (such as "dancing raisins" and "Cartesian diver"), as well as more involved projects, such as a razor-blade radio as constructed by troops in World War II (really). The site also includes a bulletin board for information on other projects.

Bizarre Stuff You Can Make in Your Kitchen, freeweb.pdq.net/headstrong/cat.htm

Tower of Babble

A Look at Language Software

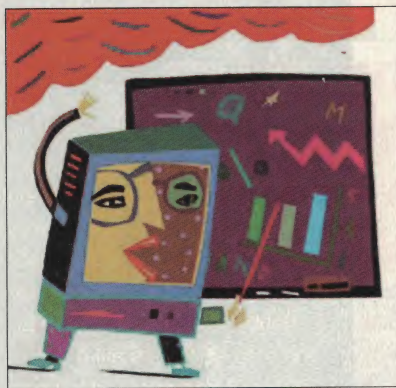
There are few of us who reach adulthood without entertaining the desire to communicate in a foreign language. For some, a new language promises a portal to another world, filled with exotic cultures, foods, and people.

The truth, of course, is that learning a new language takes one nearly instantly from expectations of grandeur and glamor into the tedium of incremental learning — baby steps forward in a noisy initiation, with a slow escape from the “eat your spinach” rigor of word and concept drills.

“Repetition, repetition, more repetition. That’s

how we learned English; that’s how we learn any language, at any age,” says high school foreign language instructor Kathleen Kanis of the Manley Academy, in Chicago, Illinois. Despite the challenges, with time, focus, and commitment, a foreign language can indeed be the entry point to new worlds.

The software reviewed here will not offer you fluency overnight, but several



present access to the basic vocabulary and sentence structure of a new language. French, Spanish, Italian — whatever your age, whatever your language of choice — software awaits you.

Animated Italian

Masterfully comic characters Asterix and Oberlix assist in EuroTalk’s *Learn Italian with Asterix and Son*, guiding the intermediate Italian student to new levels of comprehension. While the box and instructions suggest that only “a little previous knowledge of the language is required,” the reality is that this title provides a complete immersion

into the Italian language with no English translation or guidance provided. The manual assures the user that teachers’ notes and translations are provided, but, alas, they are nowhere to be found on the program. Graphics and characters are wonderful — brightly colored, larger than life, often hilarious. The voices are correspondingly rich and alive. But what are they all talking about? I suggest you ask someone who is fluent in Italian.

If you do have an intermediate understanding of Italian, the variety of activities revolving around the exploits of Asterix and Oberlix are thoroughly engaging, filled with male bravado. The written word accompanies the spoken one at all times, beneficial to both aural and visual learners. The option of recording oneself speaking along with the characters is also helpful. The enjoyable and fun nature of the program, as well as the easy-access menu and simple transitions between screens, clearly makes it accessible to all age groups.

Speaking of Italian

EuroTalk’s *Learn Italian Talk Now!* is a gondola of a whole different color. Designed for the complete beginner, this program is a direct, engaging, easy-to-manipulate, and effective introduction to Italian. Learning categories include first words, food, colors, phrases, body parts, numbers, time, shopping, and countries. Engaging and colorful pictures are accompanied by the spoken word, slowly and carefully enunciated, with a choice between male and female speakers.

The program caters to different learning styles both through the choice of activities as well as through the ongoing presentation of the written and spoken word. True, we are compelled to look at a woman in a bathing suit while innocently trying to master the vocabulary for our body parts in Italian, but otherwise, the Beverly Hills 90210 ambience is not particularly offensive. From the appearance of the smiling young woman on the cover of the box to the nature of the practical phrases taught, the teen-tour crowd appears to be the target audience. Despite the fact that the software doesn't seem to acknowledge that the world contains anyone who isn't white or over 40, Learn Italian is absolutely excellent and accessible to all.

The learning sequence is well crafted and includes quizzes following the completion of each topic. The use of repetition is effective, and there is enough variety within each learning tool to maintain student interest. For example, as each body part is correctly identified in Italian, a Frankensteinian process progressively creates a man/monster. From this science experiment to the Blackjack game that tests all of the skills acquired throughout the program, the quizzes offer an excellent and thorough assessment of progress made toward basic language acquisition and comprehension.

The menu is simple and allows for easy movement within the program and an immediate return to the main menu. While the program provides a sequential course of study and assessment, it also allows the student to skip around as his or her attention span dictates. As a first introduction to Italian for the individual interested less in reading Dante and more in enjoying a vacation, this title is absolutely flawless.

Frankly French

Nice music. Cute characters. Clever premise. Terrific bright colors. Basic acknowledgement that exposure to the culture of France might be of interest to a student of the French language. Kaplan's *French for the Real World* markets itself to the first-year French student and meets its promise by providing

an introduction to the simplest vocabulary and conversation. The introduction is engaging, using multiple images and a fun, goofy voice. Up until the moment of selection from one of the three possible menus, the journey seems ideal. The program itself, unfortunately, does not live up to its initial promise.

One moment we are happily driving through pastoral French fields surrounded by ice-capped mountains, (the setting is a race through France) and the next we are trapped in a series of monotonous exercises that, at best, lead to mastery of only the most basic terms and concepts. Fruits, colors, and clothing (the bare essentials, yes?) are the only vocabulary touched upon — perhaps not the most interesting or relevant of choices.

The average beginning traveler in France might be better served learning vocabulary about hotels, how to ask for directions, the names of places and things, or even traditional French foods, rather than translations for kiwi and cantaloupe.

Perhaps the most frustrating part of the journey involves the repetition of games and quizzes with no options for moving between screens and activities. Even when the student becomes frustrated and quits a quiz mainstream, shuts down the computer, and goes to do something else, upon returning to the program he or she is returned to the point of departure and forced to complete the quiz before being able to start a new activity. The activities, including several levels of a Concentration-like game and a trip to the grocery store, are a combination of overly simplistic con-

ception and somewhat obscure direction. The tasks are redundant and tiresome. While the program provides a translation option, because no clear instructions are offered, only unclear, nonspecific directions can be translated. Once we figure out where to click, how to drive the car around the neighborhood, and what each game's rules are, the process is simplified to the point of

boredom — almost instantaneously. And while the music and characters are lively and we can become experts on fruit and color vocabulary in no time at all, this program seems to lack the ability to hold the attention of an audience at any age level.

Simply Spanish

Kaplan's *Spanish for the Real World* shares all the strengths and weaknesses of its French-language counterpart, even

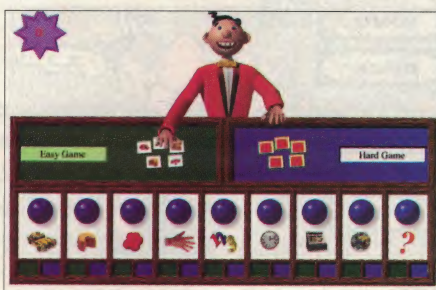
retaining some similarities in content. This time the student is dropped into the heart of Mexico for a car race toward mastery of the Spanish vocabulary of fruits, colors, and clothing (again). The music is lively, with a Salsa beat, and the characters are the same diverse, colorful, goofy, and humorous friends we met in France. But again, the monotony of learning tasks, the inability to switch between activities, the lack of clear guidelines surrounding each activity, and the limited vocabulary point toward high marks for style and low marks for structure and content.

Last but not Least

EuroTalk's *MultiMedia Flashcards Learn Spanish!* offers cute pictures, clear directions, and an excellent sequence of games to evaluate one's progress toward skill acquisition and mastery. The main



Racing through Mexico in Kaplan's program.



High-stakes Italian lessons from Learn Italian.

menu provides selections that include Learn, Games, and Record. The Learn arena contains three vocabulary sections, as well as exposure to colors, plurals, professions, actions, positions, and places.

Clearly targeting a younger audience, the vocabulary is presented simply, as though on a roll of film, unscrolling one frame at a time, with the option of male or female voices for pronunciation. The written word is included with each cartoon-like image, but the choice of vocabulary is, admittedly, a little odd. Sadly, the categories contain an eclectic, nonsequential group of words with no apparent distinction in content, theme, or complexity.

The pictures are adorable, but does the beginning Spanish student need to know the words for hippopotamus, octopus, panda, and no less than ten other animals? While three vocabulary levels break up the acquisition of so many new words, the selection is too random and unrelated. Fortunately, other sections break things out thematically.

Learn Spanish's choice of subject areas is excellent — relevant to a traveler as well as to the student interested in learning the language for its own sake. At times, however, the sweet, clever pictures can become confusing. We may find ourselves asking, "Have I just learned to say, 'The duck is sitting under the desk' or 'There is a desk on the duck'?" For the most part, the pictures are an effective link to the action, profession, and place categories, but further clarity would be helpful.

The Games option offers three selections, each with a trio of levels.

All are entertaining, sequential, relevant, and seem to accurately reflect mastery of skills and information. Find the Card, Match the Pairs, and Beat the Clock all manage to avoid both complexity of concept and execution. They are thorough and engaging — the kinds of games able to stand the test of time and repetition.

The Record section allows the student with a microphone on the computer to record his or her own pronunciation, which can then be played back in the "cinema" with an audience cheering your performance. The pronunciation component, obviously a critical component, seems to target the younger learner, judging by picture selection, overall presentation, and simplicity

of execution. Yet this title does such a good job of addressing multiple learning styles, providing sequential mastery and assessment, and remaining genuinely engaging that it seems appropriate for all age groups.

Look Who's Talking

People obviously learn languages for a number of reasons — from the desire to read great authors in their native tongue, to a means of communicating with people of other cultures, or as a prerequisite to college admission.

Addressing all potential learners of a new language with their various motivations, needs, and interests presents a huge challenge for vendors of foreign language-learning software. All of the software reviewed here demonstrates some success in meeting these challenges. While there are advantages to learning a language in a classroom setting, the majority of the software reviewed here attempts to address

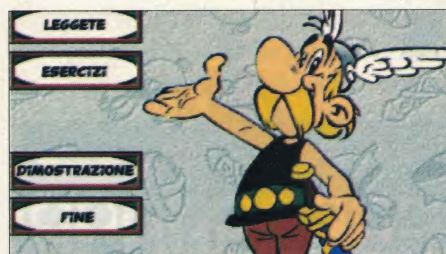
the most important aspects of skill development and language comprehension.

Advances in speech recognition may compensate for the most obvious potential shortcomings of learning a language from a CD-ROM. Certainly it's helpful to have an external corrector of pronunciation, but in many ways the process of self correction can be just as valuable.

DeAndre Jackson, a student at the Manley Academy, learning Spanish via computer, said, "I just kept saying these words over and over and then listening to the voice give this pronunciation that sounded like weird gibberish, then all of the sudden it clicked and I couldn't believe it. I just kept saying, 'look what my tongue went and did!'" 



Kaplan's teaches you the French words for fruit.



Beloved imp Asterix helps you learn Italian.

Product Info

MultiMedia Flashcards Learn Spanish!

★★★★★

\$40, EuroTalk*, distributed by Gessler Publishing
800-456-5825
www.gessler.com

Learn Italian Talk Now!

★★★★★

\$45, EuroTalk*, distributed by World of Reading
404-233-4042

Learn Italian with Asterix and Son

★★★★

\$50, EuroTalk*, distributed by World of Reading
404-233-4042

Kaplan's French for the Real World

★★★★

\$30, Knowledge Adventure
800-556-6141
www.knowledgeadventure.com

Kaplan's Spanish For The Real World

★★★★

\$30, Knowledge Adventure
800-556-6141
www.knowledgeadventure.com

*Eurotalk Products are also available directly from the manufacturer in the UK with free International shipping. Go to www.eurotalk.co.uk for more information.

Holiday Schweet Stuff

Kids looking for fun seasonal activities can tune into

Bonus.com on the Internet and take part in the first annual Holiday Fun and Games Countdown, competing with other kids around the country for daily, weekly, and grand prizes. Games include Break the Ice, a Dreidel game that teaches kids about the traditional Hanukkah toy; Wacky Winter Faces, a sliding tile game; and Alpine Ski Classic and Snowboard Challenge, testing snow lovers on their virtual skiing and boarding skills (a tip: watch out for snowplows). The site opens on Thanksgiving and runs through New Year's Day.

SuperSite for Kids, www.bonus.com



Tips on Donating your Old Computer

If you're one of the thousands of people upgrading from an older Mac to an iMac or a G3 system this holiday season, you might be thinking about donating your current machine to a school or charitable organization. According to the Annual Resource Guide, published by the Children's Software Press, there are a few things you should know. Both Goodwill and the United Way have regional computer recycling programs: Check your local listings for contact information. The National Cristina Foundation (800-274-7862) specializes in redistributing technology; they'll match you to a donor. Gifts in Kind America (703-836-2121, www.giftsinkind.org) and Share the Technology (609-234-6156, www.libertynet.org/share) will provide you with receipts for the market value of your used machine, which, in addition to shipping charges, can be deducted from your income taxes. Remember: Before you give it away, be sure to reformat your hard drive to get rid of any personal files.

Rock Me, Schoolhouse

"Conjunction junction, what's that function ... " If you can sing the rest of this song, you're familiar with the Schoolhouse Rock series, cartoons that blend catchy tunes with learning. Pioneers in blending education and entertainment, the makers of Schoolhouse Rock recently released *Schoolhouse Rock*

Thinking Games Deluxe, a collection of videos from years past, combined with new arcade games and activities to build problem-solving, math, strategy, and thinking skills. Printable puzzles and experiments round out the \$35 package.

"Our research shows that programs which develop critical thinking and problem-solving skills, as opposed to rote memorization of facts, are very important to rounding out a

child's educational experience," said Andy Young, senior vice president of marketing for The Learning Company. And a catchy jingle or two doesn't hurt, either.

The Learning Company, 617-761-3000, www.learningco.com

Extreme Typing and Virtual Pet Shops

Typing, for the most part, has never been much of a competitive sport. *Jumpstart Typing* from Knowledge Adventure (\$30), however, is fixing to change that, with head-to-head Internet keyboarding death matches, er, I mean competitions.

With *Jumpstart Typing* and an open Internet connection, players aged seven to ten select the multiplayer option from within the program and race up Mount Keys, typing their way to the top, while avoiding wall crawlers who drop green slime on players to keep them from scaling the mountain's heights — a far cry from old-school repetitive typing drills of



"Now is the time for all good men to come to the aid of their country."

Also from Knowledge Adventure is Fisher Price's *Time to Play Pet Shop* (\$20). Parents wary of buying pets for their young children can (possibly) placate their child's desire for a puppy or a kitten with the virtual pet shop.

Kids from four to seven can play Dr. Doolittle, selecting their "inventory" from forty-two possible pets; take care of chores such as feeding and grooming; role play as a pet shop owner or a small pet vet; and set up a virtual fish tank.

Knowledge Adventure, 800-542-4240, www.knowledgeadventure.com

Rugrats Movie Activity Challenge



\$30, Broderbund

415-382-4400

www.broderbund.com

ages 6 to 10

Power PC Required

Damn, they're cute. A cool movie clip leads you into the *Rugrats Movie Activity Challenge*, where players choose from six different activities. The games are light on educational value, though the game's manufacturers cite critical-thinking skill building as one of the program's attributes.

Each of the puzzle games deals with spatial relations in a unique way: In Aqua Reptar, players must navigate the Reptar Raft down the river to rescue Baby Dil from the monkeys. You must avoid items that threaten to puncture your raft, and you can also pick up Band-aids to repair the raft if necessary. Making Tracks requires kids to move tracks, sliding-tile style, to maneuver a train through gates onto new screens to pick up babies at various stops.

In Monkey Mayhem, Tommy and Chuckie collect baby food from the monkeys to rescue Dil by jumping up and down on a fast-moving see-saw — no easy trick. In Reptar Rythm, you help Reptar destroy San Francisco, Paris, New York, and other



world-class cities, all while mastering basic typing skills. Match enough keys by typing at the prompt, and the city will crumble.

Traffic Trouble sees you moving cars and trucks out of the way to make room for your baby carriage to get through. Stu's Workshop requires kids to drag various objects onto a pegboard and then place them so they work together to hit a button and release Angela.

The interface is blissfully easy to use, difficulty settings are easy to change, and swinging to different parts of the program is a breeze — all software should be this straightforward. The games themselves, for the most part, have no time limit: You're not racing against the clock, which is a definite plus. Sound effects and the kids' dialogue are both wonderful, and the variety in the games in the *Activity Challenge* ensures that kids will be captivated by at least one game, if not more. Very few kids (or adults) that I know can resist these adventuresome babies.

— Anne Marie Feld

Ready for School Kindergarten



\$20, Knowledge Adventure

800-545-7677

www.knowledgeadventure.com

ages 4 to 6

Power PC Required

Ready for School Kindergarten targets the four- to five-year-old set, touching on everything from matching games to reading the calendar. Truly, like the real-life toys Fisher-Price creates, *Ready for School Kindergarten* is a visually and aurally stimulating game, enticing kids with colorful graphics and simple sing-along songs. There are eight different places you can visit in the imaginary "Kinderville," a little town that serves as a good home base as kids click through this CD.

All in all, that's just what *Ready for School Kindergarten* is: good. Not great, but good. Good in that it touches on numbering and reading charts. Good in that kids can try to recognize colors and shapes. Good in that the cartoon characters that lead your child through this game offer helpful tips on how to solve a problem without giving away the answer.

But there's little that's great about this CD. The games are the same games you'll find in any number of children's educational titles — you can identify numbers on a clock, spell out words, follow directions. Yes, these are good games to play, but they're not presented in any particularly compelling way. No one character or game encourages your child to pick

up this CD when he or she sits down at the computer the next time.

That's not to say that the CD isn't packed with games, many of which have different skill levels. One of the best can be found in Kinderville's firehouse, where Max and an attentive Dalmatian help kids match images behind little curtains. The CD also includes a comprehensive list of ideas and activities that you can print out, allowing you to sit down with your kindergarten-aged child and work on the alphabet and numbers by hand.

Ready for School Kindergarten gets the job done, although it's not the most original production around. You might consider it for those little computer players just starting out.

— Susan Ashworth



Sammy Sam's School Supply Chart

Item	Quantity	Location
Clock Shop	1	Kindergarten
Schoolhouse	2	Kindergarten
Greenery Store	1	Kindergarten
Ice Cream Shop	1	Kindergarten
Post Office	2	Kindergarten
Candy Cafe	1	Kindergarten
Firehouse	2	Kindergarten
Toy Store	2	Kindergarten





Blue's Birthday Adventure



\$30, Humongous Entertainment
800-499-8386
www.humongous.com
 ages 3 to 6
PowerPC Required

From a kid's perspective, there aren't many things more fun than a birthday party — unless, of course, it's a scavenger hunt.

Blue's Birthday Adventure gives you both, bringing Nickelodeon's adorable blue dog to the Mac for plenty of creativity, exploration, and a dab of education.

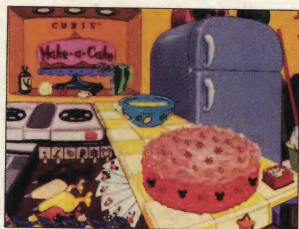
This two-disk set takes kids to Steve and Blue's house, where Blue has hidden clues both inside and outside. Kids must track

down the clues to figure out what Blue wants to play, do, and eat at her party, and what she wants to give her guests. Two disks are needed because Steve (Blue's companion) is shown in full-motion video overlaid on an animated backdrop. This looks cool, but it takes up a lot of disk space.

But you never have to switch disks when you're on a clue-hunting path: Each of the four pathways is a separate episode, so it's like four games in one. Many of the clickable objects in Blue's house and garden are the same, but the clues are found in different places, and each pathway includes its own activities.

There's a broad range of creativity and learning activities appropriate for this age group: kids can pick a gift for Blue, make a card for her, build puzzles, match instrument sounds, and lots more. The pace is leisurely, but not annoyingly so.

— Carrie Shepherd



My Disney Kitchen



\$30, Disney Interactive
800-228-0988
www.disneyinteractive.com
 ages 3 to 7
Power PC Required

Looking back on it now I find it hard to believe, but when I was in preschool, my favorite pastime was playing house. At school and at home I never tired of it. If I'd had *My Disney Kitchen* then, I would have worn out the disk.

Playing house may not be the most exciting or even educational activity, but I liked it, and kids with similar proclivities will

enjoy this program. There are really only three basic cooking activities: In This Kitchen, Good Morning Griddle, and the Make-A-Cake Oven. Mickey and Minnie Mouse pop in and out, tasting what you cook up in each area and commenting on the decor of the kitchen (wallpaper is changeable). The Magic Recipe Box has printable recipes for kids and parents (such as vegetable tempura and potato-chip chicken fingers), and clips from Disney classics lie behind recipe pictures.

Some culinary activities have real-world results — cakes burn, freezers left open build up frost — but others, unfortunately don't. A kettle I left on the burner for a half hour without filling sat on the flames without consequence. The program's teaching usefulness may be in doubt, but its appeal to kids who long to play house seems certain.

— Anne Marie Feld

Fisher-Price Great Adventures Castle



\$20, Knowledge Adventure
800-545-7677
www.knowledgeadventure.com
 ages 4-7
Power PC Required

Fisher-Price's *Great Adventures Castle* is filled with colorful characters in an environment of engaging sounds and cheerful music. The title revolves around King Crumb, whose castle is under attack by a Viking named Vigor. That darned Viking has imprisoned six of the King's knights in and around the castle walls. Players must explore the various rooms and rooftops in search of the knights, freeing them to protect the castle. Kids can pause the search to play various games and perform activities requiring different skill levels, but while some are fun, none is very educational.

On the castle roof, the Castle Cannon can be loaded with various objects, including a penguin, a warthog, and the cannon operator himself. Upon firing, animations show where the objects land, but since no skill is required, the activity soon becomes pointless. A Castle Coat of Arms activity lets children use templates to make their own crests, but it is not very flexible and contains no real challenge. Also disappointing is the Castle Builder activity — it's two dimensional and not very "castle-esque." It has too

many hedges and huts and not enough castle walls, towers, or drawbridges. It's more like a cartoon collage with little detail or interactivity.

My favorite feature, Castle Comics,



lets players create up to six pages of cartoons using colorful backgrounds, characters, and customizable text bubbles. Players can enter their own

words and develop stories with pictures and text. Castle Sing Along features five songs with easy-to-follow lyrics and animations involving different castle characters.

More difficult is Tower Trouble, requiring good hand-eye coordination. The mouse moves an elaborate shield deflecting arrows fired from Vigor's Dragon Tower outside the castle. Players bounce the arrows back, destroying the tower piece by piece, and the curved shield makes aiming quite a challenge.

Overall, it's not a bad little game, but *Great Adventures Castle* could do with some improvement.

— Conor Fleming

Magnum Opus Makers

Software that Takes the Bite out of Creative Writing

Writing runs like an undercurrent through the heart of the American Dream. And chances are, whether you're a programmer or a farmer, you've dreamed of penning the great American novel or the next Academy Award-winning screenplay.

While nothing short of hard work and a creative mind can bring that dream to life, there are tools to help you squeeze the very best out of an idea and make a good story great. Once that story is in place, there are several tools to take your prose and shape it into the form necessary for submission as a screenplay or a teleplay.

Sit around brainstorming for an hour and you can easily come up with enough ideas to fill up a small notebook. But making your idea into a compelling story

requires quite a bit of effort: Who are the characters? What are their names? Where do they live? What are their problems? Why should the reader care? That's where the first two programs come in to play. Story-

Project and

a story. Boy meets girl, boy falls in love with girl, boy loses girl, boy gets girl back: These are the events that lay the foundation onto which hundreds of stories can be built. The second building block, Threads, allows you to organize those events into meaningful parts. They can also be understood as themes that run throughout your story, tying each event together. The third, Spotlights, is a means to view your events as they relate to a specific character. Add "Character 1" to your Spotlight list, and StoryProject searches every event and displays only the events that involve Character 1. Using Spotlights you can easily see where different characters come into play throughout your storyline.

The beauty of StoryProject is that it allows you to create stories in a nonlinear fashion. As your story ideas come together, you enter them as events and assign them to threads in your story. While each event is required to be assigned to a thread, initially you can create a single thread, such as "story outline," and then, as you get a better idea of what you're writing about, you can create more specific threads and reassign your events. As you continue your creative process, you're able to gain a clear view of where your story is and where it's going. This process allows you greater freedom in the way you organize your ideas.

However, on the whole, StoryProject is a rather Spartan program. It's strictly for outlining without providing any real guidance or tools to help you to be more creative. For writers unfamiliar with the concepts of threading or spotlighting, this may make the program too difficult to master. Bearing that in mind, if you're comfortable being



Above Dramatica Pro takes hazy story ideas and whips them into shape.

Dramatica Pro are both designed to help you take your idea and give it life. They perform that task by coming from two completely different but equally worthwhile perspectives.

Phase I — Constructing Story Lines and Characters

StoryProject is a shareware outlining program that focuses on three distinct aspects of storytelling: Events, Threads, and Spotlights. Events are what most of us understand to be the basic makeup of

left to your own devices, StoryProject will give you a great overview of your story line. And that may be the only story development tool you need.

At first blush Dramatica Pro seems to guarantee far more than it can deliver. The box cover promises you will "Develop unforgettable characters, seamless plots and passionate themes into fully realized stories." But what you find upon using the program is that the promises may in fact hold true. Using a series of questions that force you to think very deeply about your story, Dramatica makes you look at what you're writing in ways you might otherwise have overlooked. And instead of resulting in something formulaic, your story begins to take on a vibrant life of its own.

The Dramatica program is actually a computerization of the Dramatica Theory, a writing concept that is built on three cornerstones: Storyforming, Storyencoding, and Storyweaving. The program interface is simple and acts as a guide through the heart of your story. After asking you to name your story and provide a brief synopsis, Dramatica begins gathering detailed information about your characters and story line. You don't just say who your characters are and what they're doing; you answer probes such as: "Briefly describe the nature of and conflicts between your characters." The beauty of

Dramatica is that, even after only an hour of work, you'll notice a significant difference in the way your story is taking shape.

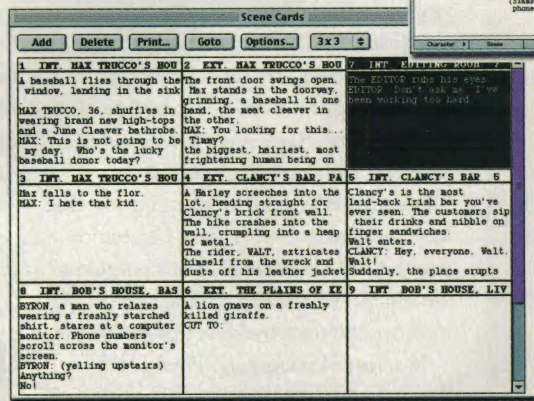
It should be noted that Dramatica is not for the faint of heart. Far from being a simple hack to help pen your prose, the Dramatica process takes some time to learn. In other words, if you're looking for a program that will hand you a story on a silver platter, Dramatica is not it. Also, to complete a well-rounded outline using Dramatica will require anywhere from several hours to several days.

Phase II — Getting the Right Format

Once your story idea is solidified, it's time to get down to the business of writing. If you're writing short stories or a novel, you won't need anything more than your word processor of choice. If you're planning on turning your story into a screenplay or

stageplay, there are several tools that will make the job much easier. Scriptware, ScriptThing, Movie Magic Screenwriter, and Final Draft are all word-processing programs that are designed specifically for writing stage and screenplays.

Since scripts are commonly formatted in a specific manner, in order to write a script using a standard word processor you only have a couple of options: Format each section of your script manually or create macros to handle the formatting for you. The beauty of script-writing software is that it will handle the formatting for you. In fact, many script-writing programs provide dozens of templates with specific formats for currently running TV programs. With no need to worry

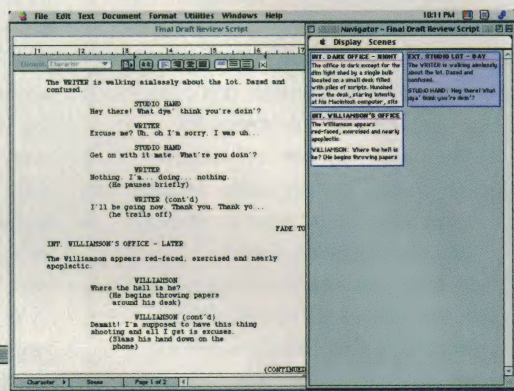


about formatting, you can tend to the business of writing — which of course is your goal.

Scriptware comes loaded with dozens of features that are all likely to tickle the screenwriter in everyone. The interface includes standard word-processing features, such as text formatting, a spell-checker, and a thesaurus. But what grabs you about the program is how quickly and easily you can format your scripts: Simply use tabs and returns to format your script for you. For example, typing this: "Bill and Anne sit on the front porch watching the sun set. [tab-return] Bill [return] You know Anne ... there's only one thing more beautiful than a sunset. [return] Anne smiles coyly [tab-return] Anne [return] What's that Bill?" results in perfect, script-formatted text. The first sentence is aligned as an Action. The sec-

ond sentence pulls up a pick list of character names allowing you to quickly select the character you're using. The third sentence is formatted as dialog, and so forth. There is literally no thought that needs to be put into how your script looks. Scriptware does a thorough job of handling it all.

Unfortunately, Scriptware was the least refined of the four programs that we



Top Final Draft combines powerful tools with a friendly interface.

Left Scriptware Scene Cards give you greater control over script organization.

looked at. Many of the text-handling features were buggy. The insertion point often appeared several characters away from where you're actually typing, and while selecting blocks of text the editing screen flashed

like a strobe light. Worst of all, if you choose not to register the program immediately it behaves like the worst kind of shareware, even though it's a commercial program. Not only does it display reminders to register every time you start the program, while working you're regularly annoyed by the same registration reminder, which you can't dismiss until sixty seconds have passed. After no less than ten minutes of using Scriptware, I was so irritated I wanted to toss the program into the trash.

If you picked up ScriptThing and Movie Magic Screenwriter (MMS) and installed them on your Mac, you might be strangely surprised. Both programs appear to be exactly the same. And, in fact, they are the same with only some very minor differences. ScriptThing and MMS are both powerful, well-written

Now What?

So you've been slaving over a hot Mac for several months and now you've created something you're finally proud of. The next obvious question is, "How do I get this published?"

For novels and short stories, there's really only one major resource. The Novel and Short Story Writer's Market is a publication that lists thousands of magazines, journals, and book publishers that are looking for material. This guide, published by F&W Publications, provides detailed information about what those publications are looking for.

When it comes to getting a script purchased, expect quite an uphill climb. The television and film industry feeds more on whom you know than on what you've written. Still, there are some guidelines that can help you get your foot in the door.

First, as soon as you've completed your script you'll need to register it with the Writers Guild of America. (On the East Coast, call 212-767-7800, and on the West Coast, call 213-951-4000.)

Once your script is registered, you'll need to contact an agent. You can obtain a list of agents from the Writers Guild. Be prepared to provide the agent with a very brief — read one or two sentence — synopsis of your script. If they like it they'll try to sell it. If they don't, it's back to the drawing board.

Lastly, if you're planning on writing scripts for currently running television shows, here are a couple of tips: Don't write a script for the show you actually want to write for. The people who hire writers for, say, *Dharma & Greg*, for legal reasons, will not read scripts that are written for that show. What you need to do is write a script for *Frasier* that an agent can show to the people at *Dharma & Greg*. People doing the hiring want to see that you know how to write for television, not that you know how to write for *Dharma & Greg*.

script-writing programs. As with all the programs reviewed, they include standard text-formatting and editing features. What's amazing about these programs is how intuitive and intelligent they are. Type "Fade in:" and the programs capitalize it for you. Press the colon key and up pops a menu that contains a list of standard screen-heading text options. Type in a character name once and it appears in its proper position on the page. Begin typing it a second time and it appears in a pick-list menu. That's the amazing thing about these programs. As you begin creating your script, the program discovers every important element and remembers it for future use. Both programs also include an outlining mode that lets you view and create scenes and dialog as if you were using index cards.

So what are the differences between the two programs? There are only two of any significance: MMS comes without a printed manual, (it's on the disk). ScriptThing comes with a complete, thorough manual. Also, since MMS is sold by the same company that created Dramatica, MMS includes an option that lets you directly export your Dramatica data into MMS. Overall, both programs are superb. Easy script editing and an intuitive interface make both a joy to use.

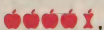
In terms of packaging, Final Draft is the slickest of the group of programs that we've looked at. And there's more to Final Draft than just pretty packaging. The program includes many of the features we've seen in the other programs, with an additional twist. Final Draft adds keyboard commands to provide access to some of the more commonly used script elements. Pressing the Command key displays an alternate menu at the top of the editing window. Press the number next to the element you want to use and it's immediately placed in its proper script location. These menus can be further modified by pressing combinations of the Command, Option, and Shift keys, providing you with dozens of editable macro options.

Like ScriptThing and MMS, Final Draft learns the names of your character and scene locations. Also like the other two programs, Final Draft displays pick lists of items you've already used in your script. Final Draft also adds an option to

print your pick lists separately, making it quite simple to print a list of characters, scenes, or other elements. One of Final Draft's most useful features is the Scene Navigator. After selecting Scene Navigator from the Format menu, you're presented with a scene-by-scene outline of your entire script. This outline can either be viewed as a list or as index cards. While the Scene Navigator is displayed, you can quickly and easily rearrange portions of your script. So, if you choose to move scene 6A to a spot between scenes 4 and 5, all you need do is drag scene 6A to its new position. Final Draft re-numbers the scene and moves the dialog to its new location.

So which product should you choose? From a story-development perspective, Dramatica takes the cake. While StoryProject provides good outlining tools, Dramatica has the potential to push you to be your creative best. For script writing, Movie Magic Screenwriter, ScriptThing, and Final Draft are pretty much on the same page. Any of these programs is suitable for a script-writing endeavor. Scriptwriter, bugginess and irritating dialogs aside, is also a reasonably good product, although it can't hold a candle to any of the other three script-writing products. **M**

Product Info

Dramatica Pro 3.0,  \$300

Movie Magic Screenwriter 3.0,  \$220
Screenplay Systems Inc.
800-847-8679
www.screenplay.com

Final Draft 4.1.7,  \$299, B.C. Software
800-231-4055
www.finaldraft.com

ScriptThing 1.1,  \$199, ScriptPerfection Enterprises, 800-450-9450
www.scriptthing.com

Scriptware 1.14,  \$200, Cinovation
303-786-7899
www.cinovation.com

StoryProject 4.0.3,  \$30 (shareware), Karl Dolenc
www.kagi.com/kdolnec/
storyproject

TOTAL ANNIHILATION™

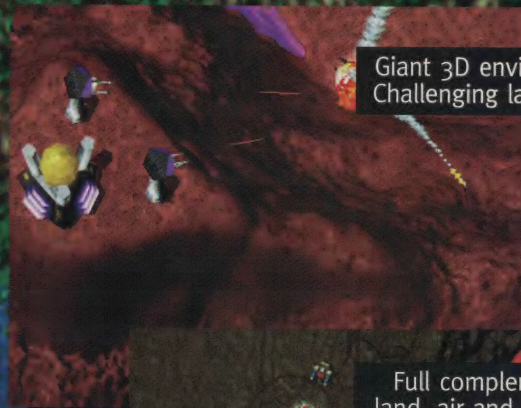
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The word is spreading across the map. Total Annihilation is poised to redefine real-time strategy games on the Mac.

Total Annihilation is a real-time war game featuring true 3D terrain and runtime-generated 3D units. Tanks drive up and over hills, tilting and rocking with each bump in the landscape and impact with enemy weapons. Battle on diverse landscapes from lava worlds to vast island-dotted oceans. Build defenses high in the hills for a better view and a better shot. Planes bank and dive in intense air-to-air combat. Amphibious tanks drive into and dive under water for surprise attacks.

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Total Annihilation, winner of more than 50 awards worldwide is coming soon to the Macintosh.



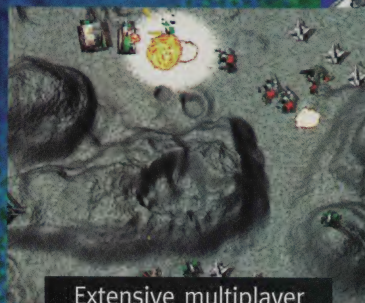
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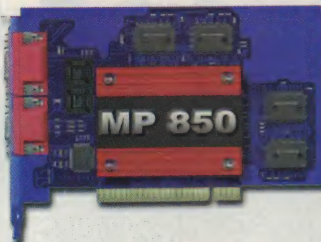
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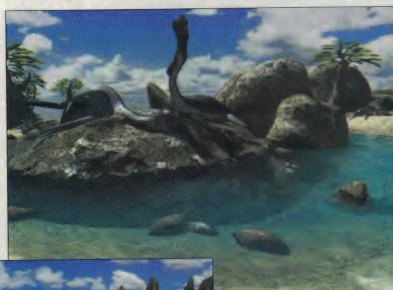
Screamin' 2D and 3D Acceleration

Germany-based VillageTronic unveiled its latest entries into the video-acceleration card market at the Düsseldorf Macworld Expo in November. The NeXtGen cards, based on the Banshee chipset from San Jose, California, manufacturer 3Dfx, are regarded to be a step beyond Voodoo 2: ultra-fast 128-bit 2D acceleration and all the 3D core performance expected of Voodoo 2 cards. The MacMagic Pro cards, with 16MB of SGRAM, will support GLIDE and RAVE and will ship with video-in and -out modules for \$299, \$100 more than the entry-level product, MacMagic. VillageTronic, 800-317-7217, www.villagetronic.com



Miller's Offering

Five years ago, brothers Rand and Robyn Miller put out a little game called *Myst*, which soon became the best-selling CD-ROM of all time. Last year, they followed up with *Riven*, the sequel that opened up more new worlds. For this holiday season, they're offering *Ages of Myst*, the fifth-anniversary commemorative edition. The \$50 boxed set includes full versions of *Myst* and *Riven*, as well as a journal and a bonus CD exploring the scene behind the scenes: *The Making of Riven — the Movie*. Red Orb, 800-548-1798, www.agesofmyst.com

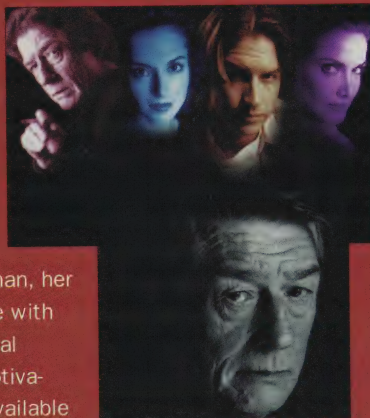


TLC and DVD

Tender Loving Care (\$45), is among the first movies designed specifically with DVD in mind.

Aftermath Media's psychological thriller stars John Hurt as a psychiatrist who enlists your help in analyzing his patients. Characters include a deluded woman, her dangerous husband, and a psychiatric nurse with questionable motives. You can explore virtual rooms to gain insight on the characters' motivations. A free demo version for the Mac is available on the Aftermath Website.

Aftermath Media, 541-482-5422, www.aftermathmedia.com



StarCraft Expansion Plan

Blizzard's newest product, *StarCraft* (wherein three species battle for intergalactic domination) is expected to hit the stores for the holiday season.

According to Blizzard Entertainment president and cofounder

Michael Morhaime, the company is expanding its reach on Internet gaming through Battle.net multi-player campaigns and a worldwide ranking system. A *StarCraft* expansion set entitled *BroodWar* is expected to be released in early 1999, including an extended story line and 24 new missions to complement *StarCraft*'s original 30-mission set.

Blizzard, 800-933-7669, www.blizzard.com



Jack with a Vengeance

You Don't Know Jack, The Ride has arrived. Volume Four (\$30) in the wacky and off-beat award-winning trivia series will sport four new question types.

That sarcastic pack of vicious hosts, those Alex Trebeks-gone-awry from Volumes One through Three will return. Plus you'll get all the fast-paced questions *Jack* fans have come to know and love.

If you haven't experienced the JackAttack or Dis and Dat, it's time, high time, to get in on the game — *YDKJ* is the best thing to happen to trivia since the dawn of mankind. Berkeley Systems, Jellyvision, and Sierra, 510-540-5535, www.berksys.com



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Morpheus



\$50, Piranha Interactive Publishing

800-747-2642

www.piranhainteractive.com

Power PC required

If you're the inquisitive sort — the type who used to enjoy hopping the fence at the abandoned factory and wandering around trying to operate the old machinery, thinking how it used to be when the place was alive and humming with activity — there's much to keep you occupied in Piranha Interactive's *Morpheus*.

A "what's-all-this?" game filled with passageways, clues, and puzzles in the tradition of *Myst* and *Riven*, *Morpheus* puts you in the role of The Explorer, who gets separated from his party in — wouldn't you just know it — the icy Arctic. Brrrr! Well, turns out The Explorer is in the area on a quest to find out what happened to his father, who disappeared here some thirty years before on a ship called the Herculania.

As luck would have it, The Explorer winds up on the deck of the old Herculania (now locked in ice) after getting caught in a blizzard and experiencing some scary dreams involving his own demise. And with good reason, too, because when you're on the ship it's pretty darn cold and deserted looking, and a temperature gauge says it's 10 degrees below zero on the deck but a toasty 60 degrees inside the ship. "I cannot survive for long," says The Explorer to himself in a very urgent tone, and understandably begins looking for a way in. From the very first scenes it's obvious that *Morpheus* will be a treat for the senses: The scenes are lushly rendered, the transitions are smooth, and the whole thing is enhanced by a spooky ambient soundtrack — moaning wind, creaking timbers, groaning machinery, that sort of thing.

As The Explorer, you are driven to find out what happened to the ship, lo those many years ago. As such you must make your way through its innards, opening passageways, collecting clues, and of course, turning the heat back on. Performing this last action appears to awaken some of the Herculania's restless spirits, and you're treated to a translucent video of passengers in period costume from time to time. Along with the occasional note or found object, these will help you piece together who the passengers were and what happened to them.

The game is certainly hypnotic and artistically done, though it can also be a little disturbing. Some of the things you'll see, such as a withered body with a noose around its neck, might just haunt your dreams forever. But hey, *Morpheus* is the God of Dreams, right? Still, I wouldn't recommend this title for Little Billy or Little Sally.

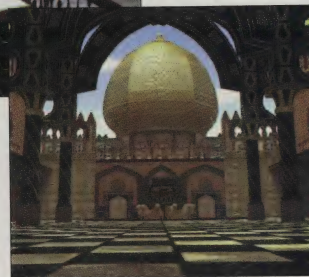
Dreams feature heavily later in the game. Once you find your way into passengers' staterooms (by finding numeric clues elsewhere on the ship), you can find serums that, used properly, will take you into these unfortunate's dream worlds — haunting scenes that give you further insights into who they were. Turns out the passengers' bodies are stored, along with their dreams, in a device called the Neurographicon. Complete all the dream worlds (in any order) and you'll have most of the clues you need to get to the Frozen Explorer, whose journal entries (and a subsequent closing sequence) make the chilling experience complete.

I found *Morpheus* to be an excellent game, even though I don't much care for the puzzle-solving approach to exploration. But the more I played it, the deeper I was drawn in. As a nonlinear game (one in which you can skip around, rather than sequentially solving each mystery), though, it was a little difficult to get a handle on some of the underlying stories and to understand the characters' relationships to one another. Come to think of it, I still don't understand them, but the game was fun, even if I didn't totally immerse myself in it. Anything that has a dark, scary interior and lots of old rusty machines that go *voodn-voodn-voodn* is all right with me.

One final thought: Since it takes place mostly inside a ship, *Morpheus* should appeal to anyone who liked *The Poseidon Adventure*. Even if the ship is right-side up and doesn't have Ernest Borgnine on it.

And if you're really inspired, you'll rent *Death Ship*, starring George Kennedy, before playing this game.

— John Poultney





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Ocean Bound



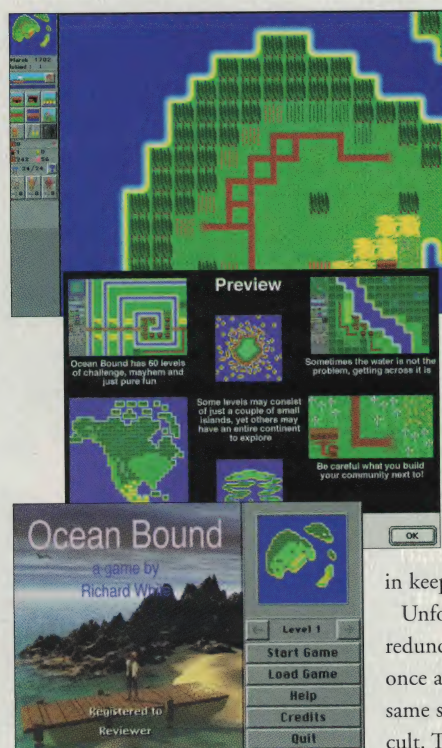
\$15, Spiderweb Software
www.spidweb.com

It's a wonder that the concept behind *Ocean Bound* hasn't been implemented into a game before. *Ocean Bound* brings Blizzard's *WarCraft* and Maxis' *Sim City* together into a game that not only challenges the mind but proves to be mildly addicting as well.

Back in the late 1980s, Maxis published *Sim City*. The game's premise was simple but highly engaging: Adopt the role of a town's mayor and turn the town into a thriving metropolis. If you served your taxpayers well, your approval rating would soar. If you placed buildings strategically, your town would grow.

When Blizzard Entertainment was just a baby in the computer game industry, it debuted *WarCraft*, a game that attracted millions of players and spawned a sequel. One of the chief elements of the game (and even more so, its sequel) was not only the concept of creating but also of building your community in such a way that it would be as strong as possible. Depending on how well the player performed tasks of upkeep and management, the community would grow or shrivel. *WarCraft* has proven to be one of the most popular games of the decade.

Many gamers have been asking for a hybrid of the two blockbuster games for years, but no one has yet been able to produce a game that achieved successful results. Spiderweb Software's *Ocean Bound* has come the closest thus far, and the result is an extremely entertaining game that will probably linger on your hard drive for quite a while.



boring at times. The concept is so well implemented, however, that this reviewer hopes to see a sequel of some sort take the next step and provide a story and multiple quests. In any case, the low price of registration for *Ocean Bound* is reason enough to at least download the demo and check it out. It is a concept in strategy gaming that has been a long time coming, and if *Ocean Bound* is any indication, we have nothing but bigger and better to expect in the future.

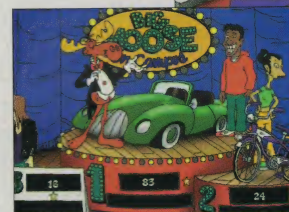
— Rafi Guroian

Rocky and Bullwinkle's Know It All Quiz Game



\$20, Houghton Mifflin Interactive
617-503-4800
www.hminet.com

Rocky and Bullwinkle's Know It All Quiz Game takes the characters from the classic animated series and sets them in a quiz-show scenario, hosted by Bullwinkle. There are three levels of activity: In round one, you select a character to represent you and select teammates from a cast of characters including Rocky the Flying Squirrel, Boris Badenov, Natasha Fatale, Dudley Dornight, and many others. Once in place, teams take turns answering multiple-choice



questions, such as, "What presidential family had a dog named Millie?" or "On what religious

holiday was Abraham Lincoln assassinated?" Your character then moves on to round two — head to head competition, though in one-player mode, the game itself isn't much of a competitor, making it a little boring. Questions are similar to those in round one, only players buzz in instead of waiting their turn.

Round three is a true-or-false round, with questions that are occasionally quirky. Some sound pretty strange coming out of Bullwinkle's mouth, such as, "Rastafarianism is a religious sect who look to America as their promised land." Uh, that's false, Bullwinkle.

On the down side, choosing teammates for round one is a little awkward; the interface is not as intuitive as it could be. And while the animation isn't altogether unappealing, there's a dowdiness built into the new characters, characters that would have seemed at home in a *Fat Albert* or *Archie* cartoon. Compared to some of the other titles aimed at this age set, the graphics seem less than fresh.

Question difficulty can be set in advance, making it suitable for a wider range of ages, but one important thing was missing for me here. The broadcast version of *Rocky and Bullwinkle* was a little edgy, with jokes built in for the older set. That's lacking in the software, which is a shame, because unlike the cartoon, it's got limited appeal for the older crowd.

— Anne Marie Feld

Lode Runner 2



\$30, MacSoft

800-229-2714

www.wizworks.com/macsoft

PowerPC Required

The original *Lode Runner* was a totally addictive black-and-white game from Broderbund in which you, the protagonist, in the form of a little pixelly stick figure, scuttled nervously through mazes of progressive complexity — mazes of bricks, tunnels, ladders, poles, and ropes — as little stick figure goons tried to get you. The game was pure brilliance, and it took up about 60K of disk space.

In *Lode Runner 2*, a 3D version of the classic, the little stick figure is a fully fleshed-out, muscular dude, or you also have the option of being a

power babe. Both are endowed with a humorous repertoire of gestures and quirks. The landscapes are rendered with the same maniacal, comic detail as the sprawls in *Duke Nukem*, and they're a surreal blend of Pee-Wee's Playhouse, *Sonic the Hedgehog* and *Myst*. The music is also artfully done — it's evocative and atmospheric without being intrusive.

Like the original, the puzzles require speed, dexterity, and ingenuity, but *Lode Runner 2* requires a new order of cleverness in order to get through the levels. You still dig into chambers, jump into them, and move on before they close up again. But in *Lode Runner 2* you must also carefully employ one of the many bombs that displace multiple chambers at one time, flip switches that make bridges appear, apply

powers of invisibility, and place traps to snag the tireless goons that are always on your trail.

You can also play *Lode Runner 2* across a network, competing against other Lode Runners in a race to the end, or competing more directly in a match for survival. And no, hardcore fans of the original won't be disappointed in *Lode Runner 2*; you can create your own levels.

My only complaint about the game is that although the tutorial leads you through a nice progression from easier to more difficult levels, teaching you the basic skills, the actual game has some extremely steep skill climbs right at the beginning, which can be frustrating when you're just starting out — don't expect to just fire up the game and become immersed in play. Even so, *Lode Runner 2* provides some of the most pleasant frustration I've ever experienced.

— David Weiss

Rocky Mountain Trophy Hunter



\$20, MacSoft

800-229-2714

www.wizworks.com/macsoft

Power PC Required

For days, I stalked big game. Using a rifle, crossbow, shotgun, and even a muzzle loader, I hunted and attempted to kill bear, elk, moose, and big horn sheep. On the third day, victory was mine. I bagged a 620-pound elk.

You wouldn't think that virtual big-game hunting would be so compelling. You wouldn't think that grown men — editors, circulation men — would sit with me, eyes glued to the screen, sometimes for hours at a time, waiting for cartoon incarnations of animals to appear, but they did. *Rocky Mountain Trophy Hunter* is a good time.

The game opens with the sound of a rifle shot and a splash screen of a big horn sheep with a Mona Lisa smile. You head to a cabin and are given a choice of destinations — a nice portal into the game. From the Go Hunting Screen you choose a weapon and accoutrements of choice (binoculars, bear call, elk attractant scent, cover spray, and the like). From there you head off to the map screen, a representation of a forty-nine square mile area, traversable by use of a crosshair. Occasionally, evidence of animal activity, such as scratchings, footprints, and droppings, flashes on your

screen, tipping you off to happy hunting. I recommend making short trips with the crosshair: It's sometimes difficult to relocate the spot where the evidence was found if you've cut a broad swath.



Once in the hunting screen, the backgrounds are realistically rendered, more so than in *RMTH's* predecessor, *Deer Hunter*. It's not perfect, however, and use of the binoculars makes objects appear pixelated. But there is a nice variety of terrain, and by placing your cursor at the edge of the screen, you can do automated 360-degree sweeps of the area.

Using the revolver, I found it hard to kill, or even maim, anything. I'd fire several shots and the animal would just disappear, never to be seen again. In the end, it was all about the rifle, but if crossbow hunting is your thing, that's in there too.

It's important to get your rifle or revolver up before you spot the animal, since the sound will frighten them off, as will your scent (stand downwind) or the sound of shots being fired. Also, waiting for the animal to turn sideways helps as well (bigger target and all that).

As one hunting buddy said, hunting is all about waiting and then a few seconds of panic. *RMTH* is the same: At a ratio of ten minutes' waiting to one minute of kill time, it probably beats the real-world ratio, and it's very enjoyable, even if I don't eat red meat.

— Anne Marie Feld

Shopping Smart for Software

Get the Most for Your Hard-Earned Dollars

Mac enthusiasts tend to gravitate towards expensive, robust software. Just ask long-time Mac users to name the five most important pieces of productivity software they have on their Macs.

Their lists will likely include Microsoft Word, Microsoft Excel, Adobe Photoshop, Adobe Premiere, Macromedia Freehand, and/or QuarkXPress. Each of these items, however, is more than \$300 each. After shelling out \$1,299 for an iMac, it's very discouraging to learn that such highly regarded software carries such lofty price tags. Do you actually need these expensive software packages? Or can you get by with much less expensive, software packages?

Evaluate Your Needs

You may have bought the computer for the entire family. You might want to type letters to friends and family; your wife might want to manage her stock portfolio online; and the kids might want to draw, color, and play games. Your needs are relatively simple. You probably don't need the advanced formatting features of Microsoft Word, nor do your children need the complex color control offered by Adobe Photoshop. AppleWorks 5.0 (\$99, but included with every new iMac) will almost certainly take care of your word processing needs. And your children will be far happier with the simplicity and playfulness of MetaCreations' Art Dabbler (\$25).

On the other hand, your needs may be specific and complex. You may be a budding graphics designer, or you might be

adding the computer to your existing small business in an effort to ease accounting and paperwork. In either case, it is very difficult to avoid higher-priced software. Adobe Photoshop (\$645) is recognized as an industry standard, and to be an effective graphics designer you need to know the application inside and out. Microsoft Excel (\$375) also is a standard. Its file formats are cross-platform compatible, meaning you can share documents with the PC world.

Try Before You Buy

The last thing you want to do is shell out \$400 for an application that doesn't fit your needs. Thankfully, many software publishers offer demonstration versions of their products. On this month's *MacHome* CD, for example, we've included demos of Adobe Photoshop 5, Adobe Illustrator 8, Macromedia Freehand 8, and MetaCreations' Painter 5.

Looking for bargains

Here are some smart shopping tips to

ensure you get the best possible price on expensive software:

Shop around. At press time, a scan of online retailers revealed price variances of up to \$75 on Photoshop 5.

Purchase software upgrades when possible. Most software publishers offer steep discounts to owners of previous versions, and sometimes to owners of competing products (ask if they offer a "competitive upgrade"). Upgrades are often less than 50% of the full product's cost. The full retail price of Freehand 8 is \$400 — yet the upgrade is just \$149.

Buy in bundles and save. Bought separately,

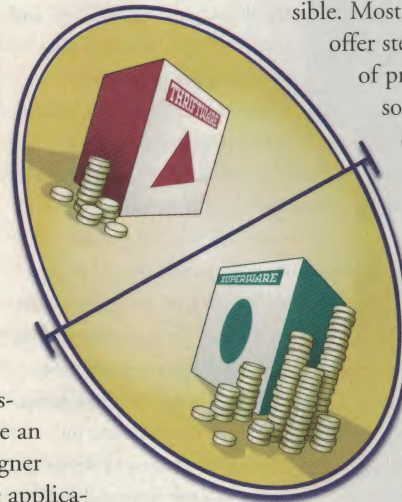
Word 98 and Excel 98 total \$800.

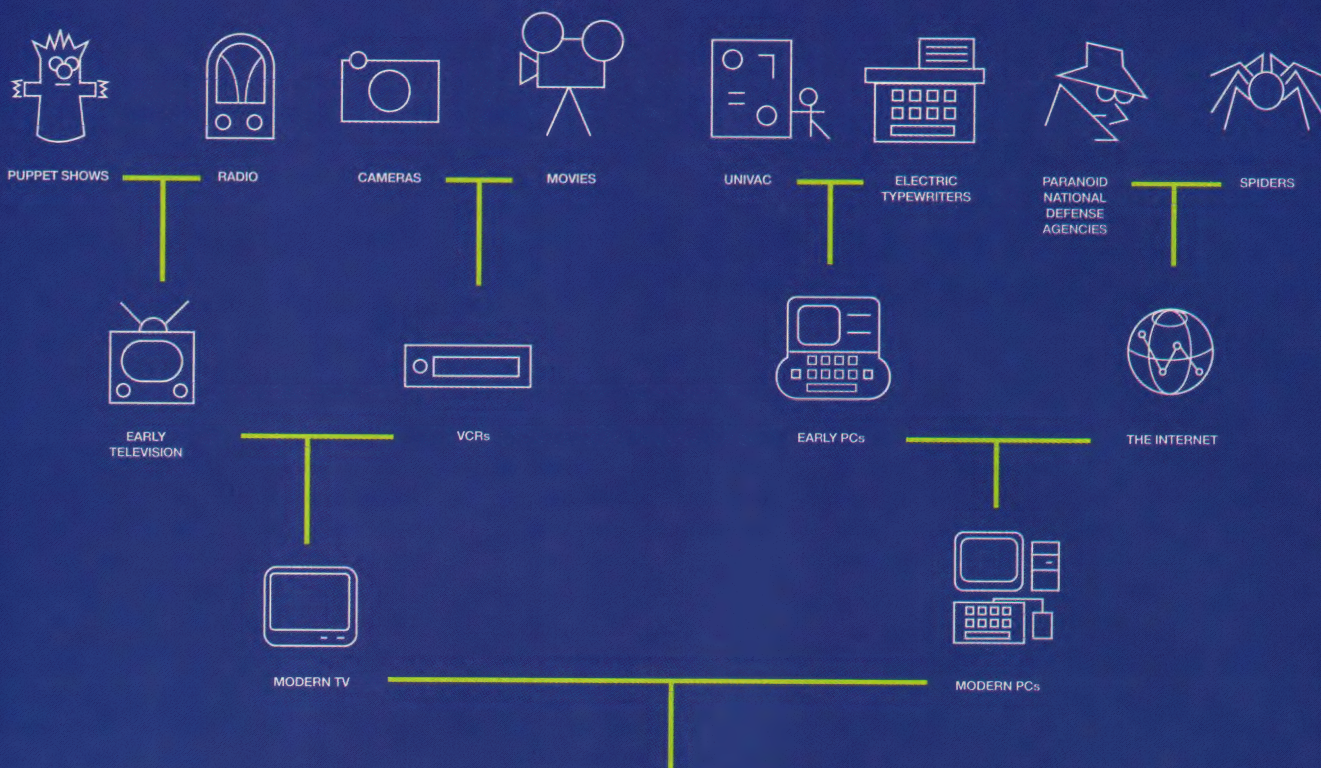
However, Microsoft Office 98 includes Word, Excel, and Power Point, yet it retails for just \$495.

Don't forget academic pricing. If you're a faculty member or student, you may be eligible for sizable academic discounts. Contact your school's computer department or campus computer store for more information.

Buyer Be Aware

Buying the right software for the job sometimes requires a bit of research. Keep your needs in perspective and make sure you're aware of all your options. You'll save money and get the most out of your Mac at the same time. 





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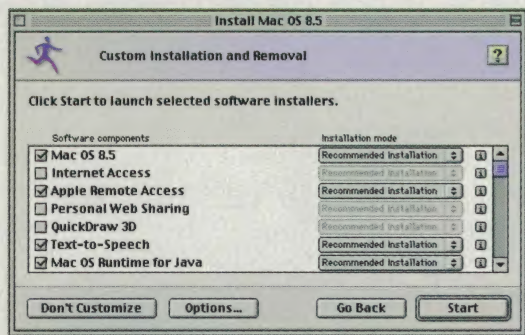
©1998 IXMICRO. All rights reserved. All other product and company names are property of their respective owners. *Requires video camera for video conferencing.

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Installing Mac OS 8.5 — Lean and Mean

When installing a new version of the Mac OS, I've tended to err on the side of caution. Rather than risk incompatibilities and other unpredictable behavior, I've always performed a clean install. Mac OS 8.5 changes this line of thinking. I've installed Mac OS 8.5 on top of Mac OS 8.1 on my four Macintoshes, and I haven't had a single problem. The biggest advantage is that I have not had to go through the tedium of reconfiguring each system — all of the control panels, extensions, and preferences stay in place. (See the OS 8.5 feature, page 26)

That said, I must note that the Mac OS 8.5 Installer isn't perfect. In the Easy Install mode it happily installs several additional pieces of accessory software along with the basic system software. Unfortunately, these extras are frequently useless to most users and simply add clutter to the hard drive. You should weed out unwanted software before you install Mac OS 8.5. To do so, click the Installer's Customize button and select the specific items you want installed. It is unlikely you will need the following software:



Mac OS Runtime for Java There's little need to install Mac OS Runtime for Java unless you plan to run Java applications outside of Netscape Navigator or Internet Explorer, both of which include their own implementations of Java.

Personal Web Sharing This software allows you to share HTML documents with friends across a local area network or even over the Internet. But if you're not a budding Webmaster, there is little point installing the software.

QuickDraw 3D Apple's cool real-time 3D technology is fun to play with — for about five minutes. It has little current functionality, and actually pushes up your system's RAM requirements. Skip it.

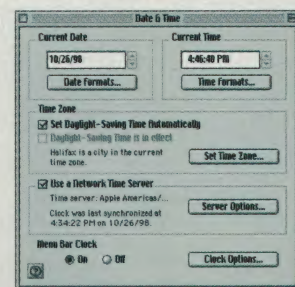
Internet Access The Internet Access Installer is the most disruptive installer of the lot. Chances are pretty good that you've already configured your Internet software just the way you like it. If you choose to install the Internet Access component, you'll install Internet Explorer 4.01, Outlook Express 4.0.1, Internet Config, and other software you may already have installed (or don't want to install). The installer also makes several dozen aliases and throws them on your desktop in your Internet folder and your Apple Menu Items folder. What a mess.

If you're comfortable with the Internet software you have installed, deselect the Internet Access option. Otherwise, click on the pop-up menu to the right of the Internet Access option, select Customized Installation, and choose only the components you want installed (Netscape Navigator 4.05 is an option). And don't worry about not installing the software required to establish a connection to the Internet — oddly enough, that's part of the Apple Remote Access Installer.

The Right Time

Mac OS 8.5 introduces a cool new feature to the Date & Time control panel — the ability to use a network time server to set your Macintosh's clock.

When the Network Time Server option is selected, your computer will poll an Apple time server (three are available — America, Europe, and Asia) at regular intervals and adjust your clock if ever it should find a discrepancy. Although it's not rocket science and it certainly won't improve your productivity, it does make life just a tiny bit simpler.



check it out!

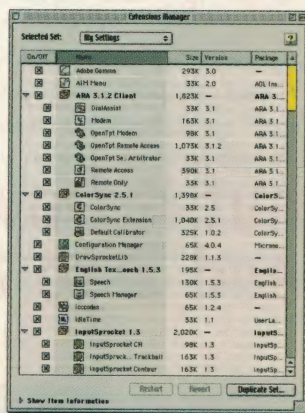
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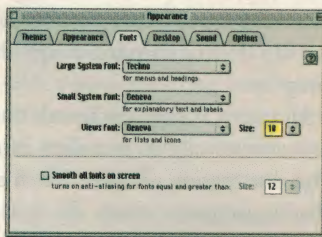
View by Package

The Extensions Manager can make life easier by allowing you to turn on and off certain software components. This can be particularly important if you're trying to diagnose a software conflict. However, it's sometimes difficult to know which pieces of software work in conjunction with each other and which are totally unrelated. For example, the Remote Access control panel is obviously part of the Remote Access software package, but did you know that OpenTptSerialPort Arbitrator also is part of that package? Extensions Manager 4.0.4 (included with OS 8.5) makes such worries a thing of the past. After opening the Extensions Manager, simply choose Packages from the View menu. All software items will then be grouped by the package of which they are a part. To turn off QuickDraw 3D, for example, you'd simply deselect its package — and all its parts are automatically deactivated.



Smoothing the Rough Edges

One of Mac OS 8.5's more refined features is its ability to anti-alias (or smooth) the edges of onscreen text. Within the new Appearance control panel, you'll find an option allowing you to configure your system fonts. Although Mac OS 8.5 allows you to choose among seven large system fonts, most of the cooler fonts — Capitals, Gadget, Sand, and Textile — look pretty shabby at 12 points. This all changes when font smoothing is turned on, however. The jagged black edges of the font are replaced with varying grays, resulting in smooth, easy-to-read text.



Dragging Window Contents

Have you ever opened a folder and found icons tossed about, as far as the eye can see? Have you ever scrolled aimlessly, looking for a particular document with a particular icon (such as an Adobe Photoshop file)? Sometimes scrolling is just not effective. With Mac OS 8.5, however, you can grab the interior of a window and drag it any direction. Simply hold down the command key as you click in the white space of a window. Keep the mouse button depressed. Your icon will then change to a gloved hand, and you can drag the contents of the window in any direction you like — even diagonally. Try doing that with scroll bars!

share your tips!

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Turn It Off or Shut It Down, Invisible Files, and Z to A

Q I have set my Macintosh to automatically come on at 9:00 a.m. and shut down at 11:00 p.m. Except for about half an hour in the morning to check my mail and do another thing or two, the machine is more or less idle until I get home in the evening. Should I, a) turn the computer off during idle time, b) leave the computer on all day until shutdown, or c) turn off only monitor during idle time?

—Mark Phillips

A It's difficult to make a blanket recommendation, Mark. There are several factors you must take into consideration when deciding whether or not to leave your Macintosh on all day long.

Some experts suggest you turn the computer off whenever it is not in use. The thinking is that the more frequently the components are used, the more likely they are to malfunction. Other experts argue that you should leave your computer on at all times, to minimize the stress caused to components, such as the hard drive or internal fans, as they start up and shut down. There is no empirical evidence to suggest the latter is true, however.

You must first consider your reasons for leaving your computer on during the day. For some, it's a matter of necessity — you may need to remotely access the computer from work or receive faxes. For others, it's simply a matter of convenience — the slow startup sequence can seem impossibly long when you're in a rush.

Another consideration is the environment your computer is in. If your home office tends to get dusty, your comput-

er's fan will function as a large air purifier, inhaling dangerous amounts of dust over time. A buildup of dust can cause electrical shorts that may damage your computer.

Your final consideration is energy usage. Leaving your computer on hour after hour, day after day will certainly put a strain on your power bill. Thankfully, there are a number of things you can do to minimize energy consumption.

All recent Power Macintosh models automatically go to a sleep mode after a set period of time. When a Macintosh goes to sleep, the system spins down the hard drive and powers off the display, limiting energy consumption. When you return to your Macintosh, you can wake it up with a simple touch of the keyboard — your Macintosh springs to life, exactly the way you left it.

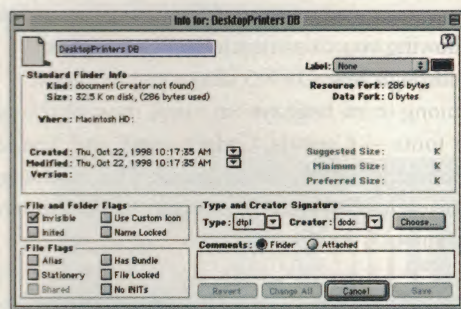
Under most circumstances, Mark, it's fine to leave your Macintosh on throughout the day. I'd recommend putting your system to sleep to minimize energy consumption, however. If your Macintosh does not support a sleep mode, I'd suggest you manually turn off your display. Unlike your Mac, your display can start up in seconds.

Q For months now, Norton Utilities reports that a file "DesktopPrinters DB" has a damaged resource fork and should be replaced. This is apparently an invisible file, and it isn't included in the Mac OS CD. I use an Epson printer, which continues to work fine, and Epson has told me that the file has

nothing to do with them. Can you find out what this file is, where it came from, if I need to replace it, and, if not, how to get rid of it?

—Bill Isham

A Mac OS 8 includes new printing software that places an icon of your printer on the desktop. Desktop PrintersDB is part of this software — an invisible file that stores information



about all printers connected to your Macintosh. Somehow, the file has become corrupted. The file corruption hasn't reared its ugly head, however, because your Epson printer uses its own specialized printing software rather than Apple's printing software.

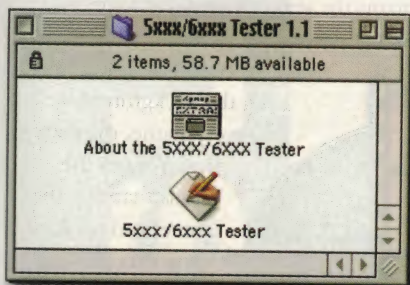
To get rid of the file, you'll need to use a program called File Buddy (included on this month's *MacHome* CD). Launch File Buddy and select "Get Info" from the File menu. Click on the Desktop button in the Open dialog box, and then double-click on your hard drive. You'll then see DesktopPrinters DB listed with other items in the first level of your hard drive. Select

DesktopPrintersDB. In the window that opens, you'll see a box marked "invisible" under the heading "File and Folder Flags." Uncheck "invisible" and save the changes. Now, in your hard drive's main window, you should see a generic-looking file called "DesktopPrintersDB." Simply throw it in the trash.

Q I have a Performa 6300CD. I was informed by way of a Read Me file on the Mac OS 8 CD that there was a hardware problem in my computer that made it incompatible with the OS 8 upgrade. I am operating on the OS 7.5.5 system at the present time. Is 7.5.5 the highest upgrade that I can use on my computer? Are there still problems with any additional upgrades, such as OS 8.1 or any future upgrade to the operating system with my computer?

—Peajink

A Your Macintosh may have a hardware problem that prevents it from running newer versions of the Mac OS. Unfortunately, some 5XXX/6XXX series Performa and Power Macintosh systems were manufactured with a logic board



defect. The defect tends to cause unusual and frustrating system freezes.

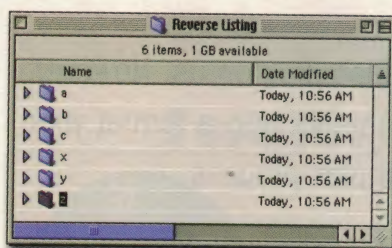
The Mac OS 8, 8.1, and 8.5 CDs include a small utility called the "5XXX/6XXX Tester 1.1" that checks your system for the defect. If the utility reports that your system does indeed have a problem, you need to take your Macintosh to an authorized Apple service provider for repair. Apple has announced a repair extension program for the 5XXX/6XXX defect, meaning that it will be repaired free of charge, even if your Macintosh warranty has run out.

On the other hand, the 5XXX/6XXX Tester may report that your Performa

6300CD is just fine. If so, you can upgrade to the latest version of the Mac OS at your leisure and without worry.

Q A very strange thing has occurred on my PowerBook 5300C: My hard drive insists on alphabetizing my files in descending order — Z to A instead of A to Z. The interesting thing is, when I open other folders within the hard drive, they are in the correct order. I recently had Mac OS 8 installed. Any ideas?

—Lynette



A You've actually come across a cool but subtle feature of Mac OS 8. If you double-click your hard drive icon, you'll open a window that displays its contents. To the far right, atop the vertical scroll bar, you'll see a small, striped triangle. Right now, it's likely pointing downwards. Clicking on it will cause it to point upwards, and your files will then list themselves from a to z. This also works with other list views, too. For example, you can choose to list the contents of a folder by Date Modified. By changing the direction of the triangle, the items will list from newest to oldest or oldest to newest. **MM**

let us know!

Got a Mac problem that's driving you nuts? Let us take a crack at it. We'll answer questions of general interest to all readers. All mail is assumed intended for publication, and we reserve the right to edit questions for brevity and clarity. When sending your questions, include your full name and phone number. Send your questions to: questions@machome.com

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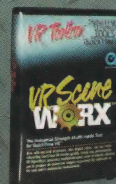
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Exploring the Limits of Digital Video

The era of ubiquitous digital video is upon us. However, converting standard video elements into a format your computer can understand is a complex process.

Light reflecting off the objects around us allows us to see them. The retina at the rear of our eyes registers the intensity and color of the light patterns and sends the information to our brains.

A video camera works in much the same way. Light enters the camera lens and breaks into the three primary colors: red, green, and blue. The lens focuses the individual colors on small panels coated with a light-sensitive and electrically conductive compound. The greater the intensity of the light, the greater the electrical current generated. The differences in the electrical current across each panel are registered as analog wavelengths that vary in amplitude (height). These red, green, and blue signals are then combined at different frequencies to form an analog video signal.

From Waves to Pixels

The first step in creating digital video is converting the analog video signal into digital format. A Power Macintosh equipped with a video-digitizing card can accept several types of analog input: RCA jack, commonly used to connect a VCR or video camera to a computer; S-video, an advanced standard that separates the red, green, and blue signals for better quality; and coaxial cable (if the digital video card has a television tuner).

The digital video card takes the analog

video signal and splits it back into the three primary colors. To determine the color of a single pixel, the digital video card monitors each color signal for a fraction of a second. The individual intensities of the red, green, and blue signals are then combined to determine the pixel color that should be displayed. Exactly how long the signals for a single pixel are monitored depends on the specified picture resolution and frame rate. If you have chosen to record video at 320 x 240 pixels at 15 frames per second, the digital video card must determine the colors of 1,152,000 pixels within just one second.

Since the color value of each pixel recorded is 24 bits (or three bytes), the amount of space required for digital video can add up very quickly. A single frame of video at 320 x 240 requires 225K of hard drive space; at 15 frames per second, a single minute of video requires 200MB of hard drive space.

Size Matters

Digital video in this raw format is far too bulky for everyday use. To be truly useful, it must be compressed to a size

that's manageable for editing and transmission. Digital video compression is handled by Apple's QuickTime extension, which contains a number of compressor/decompressors (codecs) suited for different uses.

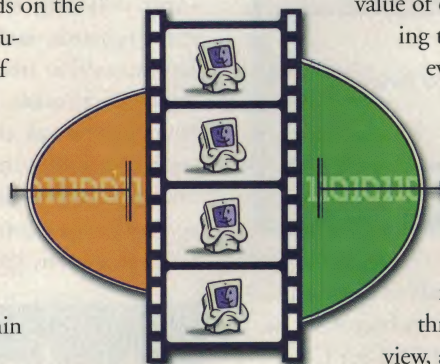
The compressors work principally by noting similar elements in each successive frame of video. Consider a one-minute interview with Steve Jobs. The camera is stationary. Steve sits in a chair, while his head, body, and arms move as he speaks. However, much of the background remains the same through each successive frame. Instead of including the color

value of every pixel representing the background in every frame, the compressor notes the pixels that stay the same, and for how long they stay the same. If a 120 x 60 background element stays the same throughout the interview, approximately 18MB can be shaved off the file. The

compressor nips and tucks wherever it finds similarities to reduce file sizes as much as possible.

The Digital Channel

Compression schemes are becoming more efficient, disk drives are larger, and high-speed telephony is here. In the future, the digital video content you view on your Mac may be indistinguishable from TV — except that you can watch what you want, when you want. **MM**



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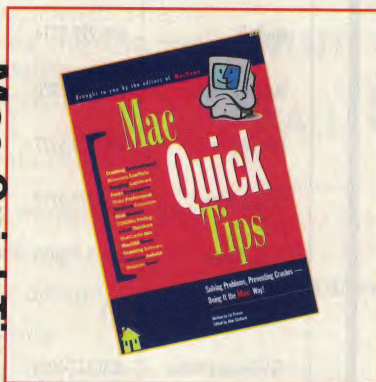
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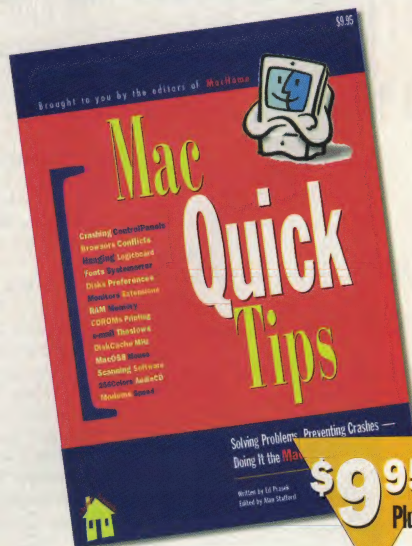
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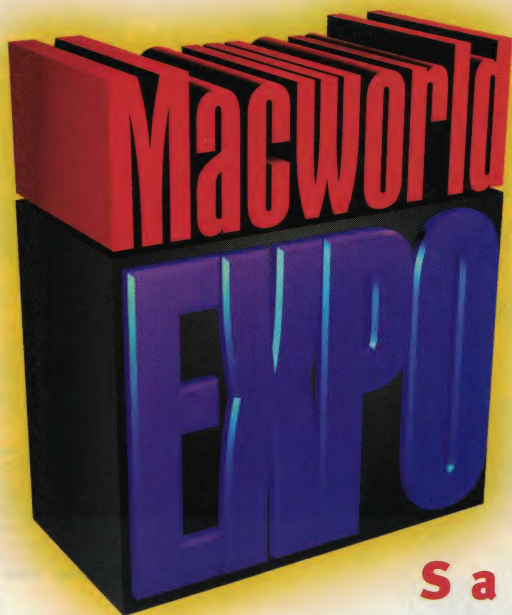
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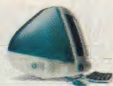
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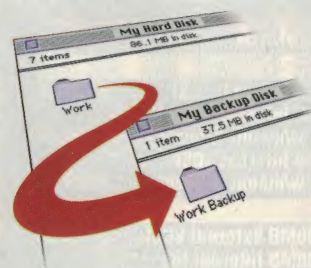
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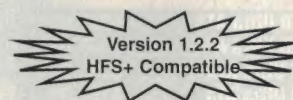
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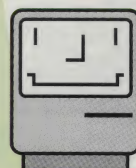
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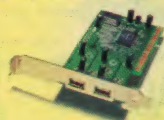


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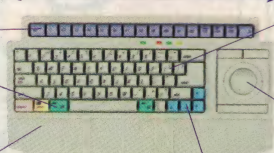
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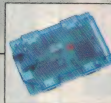
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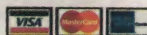
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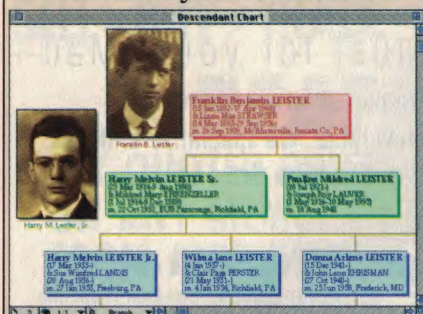
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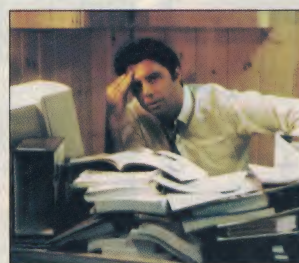
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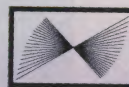
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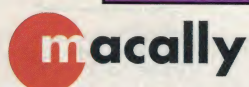
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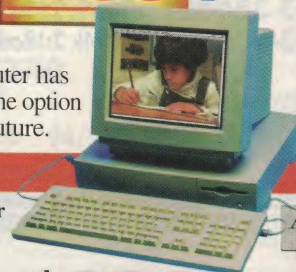
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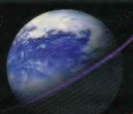
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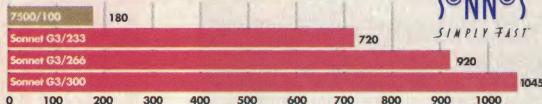
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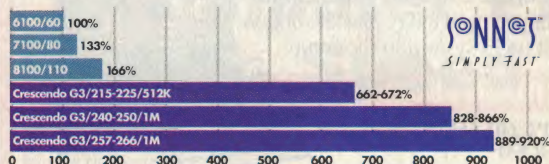


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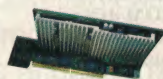


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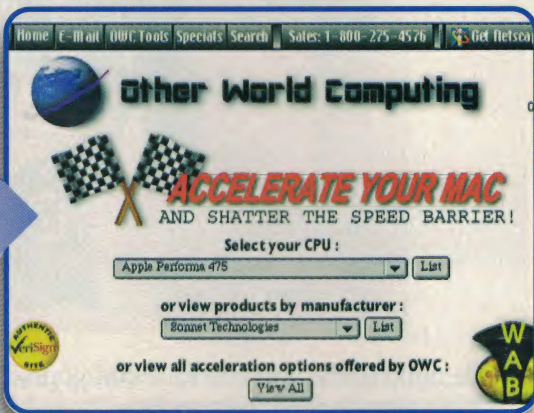
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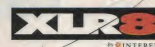
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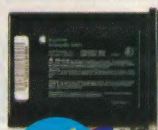


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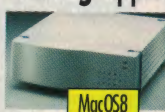
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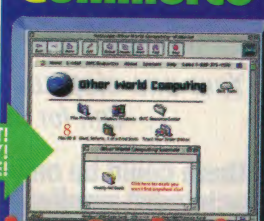


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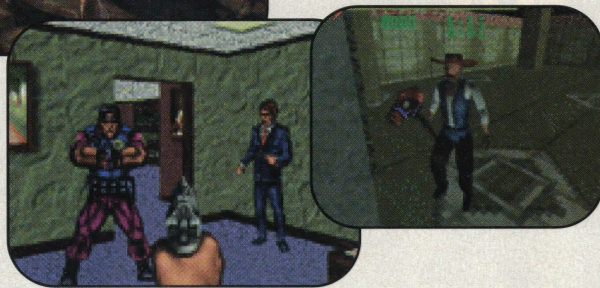


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Go Forth and Evangelize

Finally, We Have Good Things to Say

A year ago (which was, coincidentally, when I began writing this column) things looked pretty bleak for Apple. In fact, I have to admit, a year ago I was not certain our beloved Apple was going to make it.

A year ago I was afraid. Very afraid. After Steve took over and killed the clones, I worried that it was the beginning of the end. Apple had lost more than a billion dollars. It had a large, unwieldy, barely-competitive product line that included printers, handheld devices, and all kinds of other non-core products. Developer faith in the platform was lagging, and even the staunchest of Mac enthusiasts was concerned. *MacUser* folded up its tent (I know, technically speaking, it was eaten alive by *Macworld*).

You must also remember how a year ago Apple-bashing in the mainstream media was at its zenith — you couldn't read an article about it that didn't include the words "beleaguered," "ailing," and/or "troubled." And how could you forget that a mere twelve months ago your friends made fun of you when you said you were a Mac fan. Simply put, a year ago it was uncool to evangelize the Mac. What a difference a year makes, eh? Whereas a year ago it was hard to be a Mac fan, today Macs are cool again and it's hip to evangelize them once more. Why am I so bullish on Apple this month? Let me let you in on a secret. Due to the wonders of publishing a paper-based magazine, it may be 1999

for you — Happy New Year — but it's October for me: October 14, 1998, to be exact. This was a BIG DAY for Apple. This was the day Steve Jobs announced that Apple's fourth-quarter earnings were \$106 million, that this was Apple's first profitable year in three years, that over 40 percent of iMac buyers are new customers for Apple, and that Mac OS 8.5 is here. Oh yeah, he also said that fourth-quarter shipments increased 28 percent over last year, and that the ending inventory dropped to an amazing and lower-than-even-Dell \$78 million, or just six days of inventory. And that Best Buy would be selling iMacs before the holiday season begins. And, best of all, that Apple stock had more than doubled in value over the previous year.

In other words, it's been a very good year. Which is why I'm happy to say, there's never been a better time to be a Mac fan.

Which brings us, five-sixths of the way through this column, to the point — it's OK to be a Mac fan again. In fact, Apple needs us now more than ever. While Apple's marketing has improved a zillion times in the past year, marketing just isn't enough. Apple has always been about evangelizing, so it's time to go out there and tell everyone you see why Macs are better.

When someone asks what kind of computer you drive, don't shrink away. Tell 'em you use a Mac and tell 'em with

When someone asks what kind of computer you drive, don't shrink away. Tell 'em you use a Mac, and tell 'em with pride. Tell 'em about Mac OS 8.5 and how it smokes Windows 98.

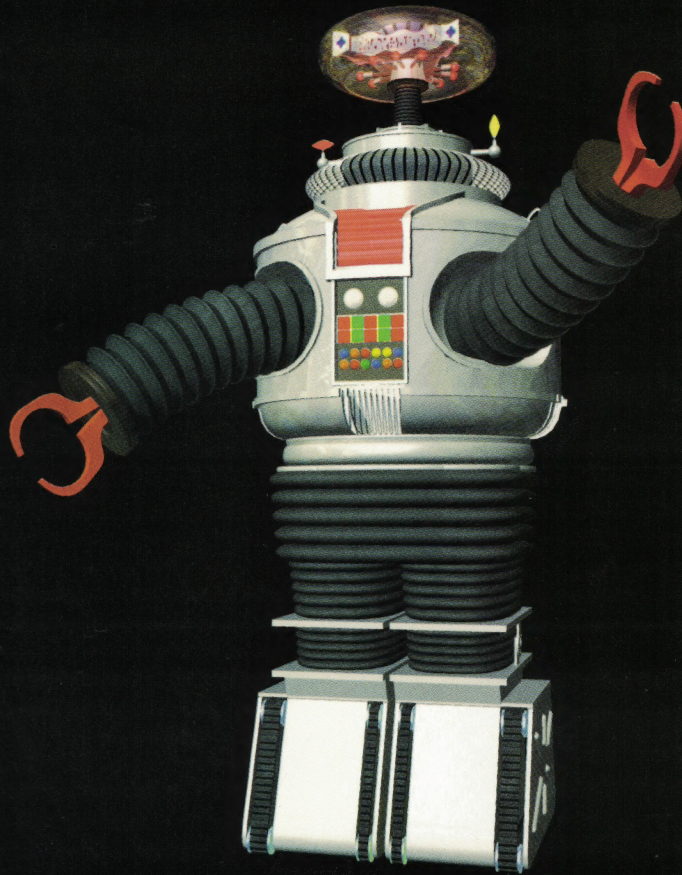
pride. Tell 'em about Mac OS 8.5 and how it smokes Windows 98. Tell 'em about plug-and-play and how it compares to PC's "plug-and-pray." Tell 'em how PowerPC kicks Pentium's butt. But for heaven's sake, tell them.

You know, "fan" is short for "fanatic." So if, like me, you're proud of Apple and love your Mac, get the heck out there and prevent someone from making a WinTel mis-

take today. You'll be doing them (and Apple) a huge favor.

Bob LeVitus is a leading authority on the Mac OS and the author of 28 books including Macworld Office 98 Bible and Mac OS 8.5 For Dummies. E-mail comments to boblevitus@machome.com.

DANGER! DANGER!



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When your Macintosh computer is not functioning properly, it is important that you have the right tool to find and correct the problem. And as any knowledgeable robot will tell you, one can never have too many tools when important data is at stake. TechTool Pro 2 checks and repairs more aspects of your Macintosh than any other utility available. Besides repairing and recovering damaged drives (including those with the new HFS+ format), you can also test all those other critical parts of your system that other utilities ignore like RAM, CPU, floppy drives, scanners, modems, Internet connections, CD-ROM drives and much, much more. TechTool Pro will even help your computer run faster by optimizing your disk drives.

But just because TechTool Pro is the most advanced Macintosh troubleshooting utility available doesn't mean that it's difficult to use. In fact, we've added an easy-to-use interface that makes checking and fixing your Macintosh a snap. For the advanced user, our expert mode allows you to control and configure TechTool Pro in almost any way you wish.

So if Macintosh troubles are making you feel like a bubble-headed booby, check out TechTool Pro. After all, you have the most powerful computer in the galaxy. Shouldn't you be using the most powerful utility?

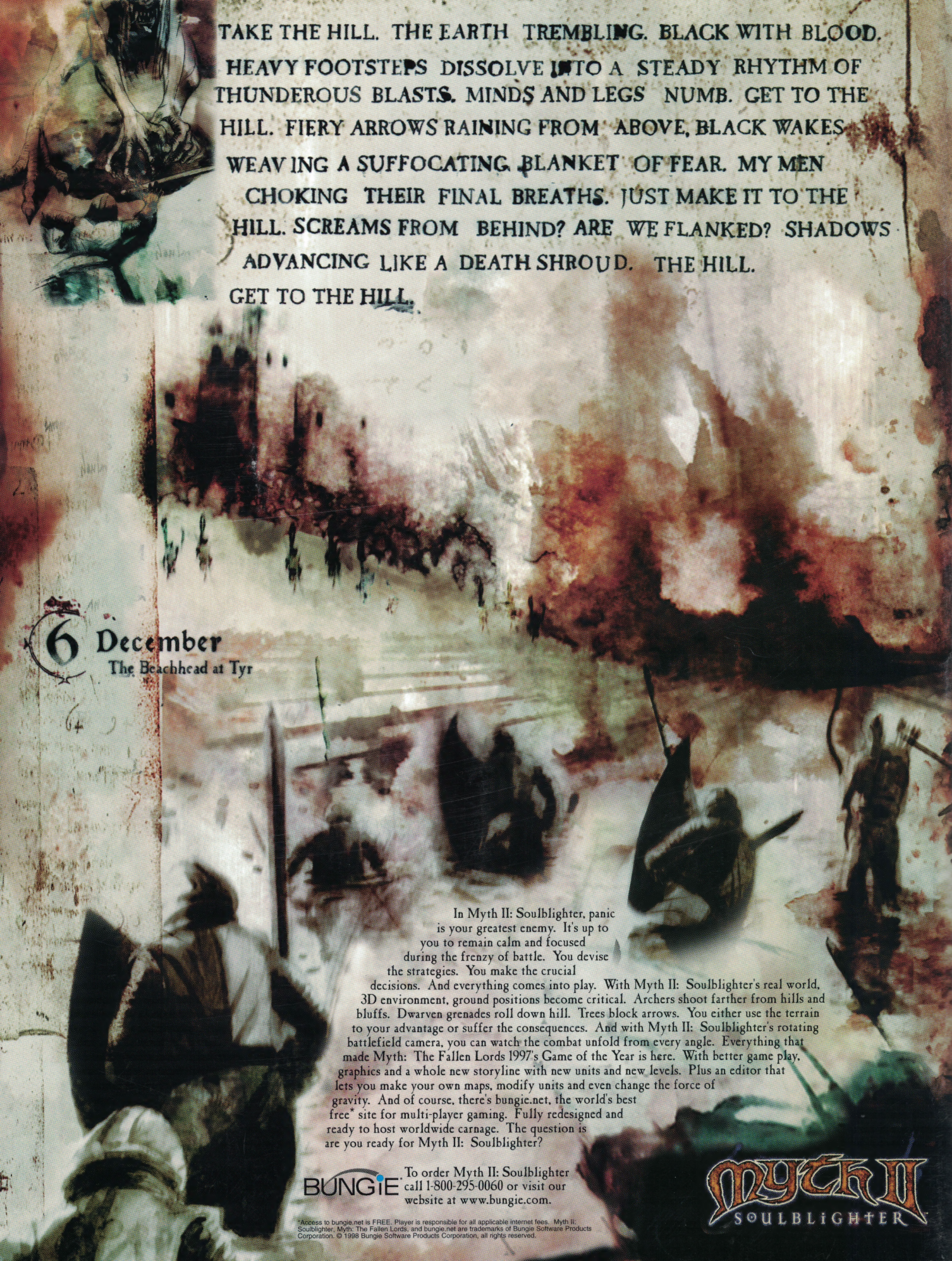
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6 December

The Beachhead at Tyr

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